

Dental Digest

MAY 20 1959
UNIVERSITY OF MICHIGAN
DENTIST LIBRARY

Forty-fifth Year of Publication

May 1959

IN THIS ISSUE

| | |
|--|-----|
| Positive Technique for Gingival Retraction | 200 |
| Spiva, Blood, and Dental Sludge Control in Dentistry | 203 |
| The Maxillary Occlusal Rim as a Basis for the Design of Intra- oral Radium Applicators ... | 208 |
| Clinical Application of Hyp- noanesthesia in Dentistry— Part Two | 211 |
| Surgery of the Pterygomandibu- lar Fold | 214 |
| The Editor's Page | 221 |
| Clinical and Laboratory Suggestions | 222 |
| Medicine and the Biologic Sciences | 224 |
| Ortho-Angles | 233 |

(A Complete Table of Contents
Appears on page 199)

Cover illustration—Sprague
article, page 203



NEW UNIVAC® AND VERIDENT® MOLD GUIDES



CALL YOUR
UNIVERSAL DEALER
... GET A UNIVAC
AND VERIDENT
MOLD GUIDE FOR
YOUR OFFICE ...
WITHOUT DELAY!

UNIVAC MOLD
GUIDE

UNIVAC MOLD GUIDE
ASSORTMENT

VERIDENT MOLD
GUIDE

VERIDENT MOLD GUIDE
ASSORTMENT

UNIVAC-VERIDENT
DUAL-DIAL COLOR GUIDE

For use at the chair,
Univac and Verident
assortments are supplied
in matching tooth-stock
drawers that attach easily
to the Mold Guide Cabinet.

Specify with

SPECIFY WITH THE NEW UNIVAC-VERIDENT DUAL-DIAL COLOR GUIDE



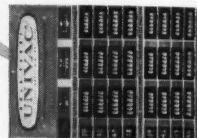
exquisite beauty...
IN A PORCELAIN FOR PERFECTIONISTS



UNIVAC®
LIFELUCENT PORCELAIN ANTERIORS

The exquisite beauty of Univac
... greatly welcomed

by the Profession ... is equally appreciated by
patients. Select Univac Anteriors for your next case—
choose from the most complete range of
sizes, outlines and labial detail. Univac lifeluculent
porcelain is dense, voidless and strong ... fired
in specially developed electronically
controlled Univac Vacuum Furnaces.



ASK YOUR UNIVERSAL DEALER FOR THE NEW UNIVAC MOLD CHART—OR WRITE DIRECT

Dental Digest

Registered in U.S. Patent Office

MAY 1959

About Our CONTRIBUTORS

ELLIS GEORGE BOVIK, D.D.S., (Northwestern University, 1927), M.S.D. (Northwestern University, 1932) formerly a member of the faculty of Northwestern University Dental School, last published in *DIGEST* in January 1959 when he presented a technique for occlusal equilibration. This month his article is **A POSITIVE TECHNIQUE FOR GINGIVAL RETRACTION**.

BOYD F. SPRAGUE, D.M.D., (University of Oregon, School of Dentistry, 1932) emphasizes in his practice dentistry for the handicapped and has published on this subject. His first article to appear in *DIGEST* is **SALIVA, BLOOD, AND DENTAL SLUDGE CONTROL IN DENTISTRY**, in this issue.

ALLEN FRED GOLDBERG, B.S., (University of Illinois, 1958) is a resident in oral surgery at the University of Illinois. For his first appearance in *DIGEST* he presents **THE MAXILLARY OCCLUSAL RIM AS A BASIS FOR THE DESIGN OF INTRAORAL RADIUM APPLICATORS**.

AARON A. PAPERMASTER, D.D.S., (University of Minnesota, College of Dentistry, 1925) has been using hypnosis as an adjunct in dentistry for more than ten years. In this issue he presents the second installment of his three-part article, **A CLINICAL APPLICATION OF HYPNOSIS AND HYPNOANESTHESIA IN DENTISTRY**.

JULIUS G. GODWIN, D.D.S., (Washington University, 1941) is a general practitioner who was instructor in oral surgery and anesthesia at St. Louis University for five years. Doctor Godwin has more than a dozen published articles to his credit on a variety of dental subjects, and last published in *DIGEST* in 1946. His present article is **SURGERY OF THE PTERYGOMANDIBULAR FOLD**.

| | |
|---|-----|
| A Positive Technique for Gingival Retraction <i>Ellis G. Bovik, D.D.S.</i> | 200 |
| Saliva, Blood, and Dental Sludge Control in Dentistry <i>Boyd F. Sprague, D.M.D.</i> | 203 |
| Isolation Stress in Medical and Mental Illness (An Abstract) <i>Eugene Ziskind, M.D.</i> | 207 |
| Treatment of Gingival Inflammation (An Abstract) <i>Stanley J. Behrman, B.A., D.D.S., Stanton B. Fater, D.D.S., and David L. Grodberg, D.D.S.</i> | 207 |
| The Maxillary Occlusal Rim as a Basis for the Design of Intraoral Radium Applicators <i>Allen Fred Goldberg, D.D.S.</i> | 208 |
| Announcement of Books Received | 210 |
| Why Do Cancer Patients Die? (An Abstract) <i>James D. Hardy, M.D.</i> | 210 |
| A Clinical Application of Hypnoanesthesia in Dentistry—Part Two <i>A. A. Papermaster, D.D.S.</i> | 211 |
| Surgery of the Pterygomandibular Fold <i>Julius G. Godwin, D.D.S.</i> | 214 |
| Oral Surgery after Adrenalectomy (An Abstract) | 220 |
| The Editor's Page | 221 |
| Clinical and Laboratory Suggestions 1. Immobilizing the Tongue. 2. Protection of Existing Restorations. 3. A Temporary Posterior Crown. 4. Cleaning Rubber Base or Silicone Impressions. 5. Mouth Mirror and Retractor. 6. Protection of Teeth During Extraction. | 222 |
| Medicine and the Biologic Sciences | 224 |
| Contra-Angles | 233 |

EDWARD J. RYAN, B.S., D.D.S., Editor**WANDA T. PICKARD, B.A., Assistant Editor****708 Church Street, Evanston, Illinois**

Copyright 1959 by Dental Digest, Inc. See page 194 for subscription data, etc.
The magazine is mailed on the fifteenth of the month of issue.

A Positive Technique

for GINGIVAL RETRACTION

ELLIS G. BOVIK, D.D.S.,
Monterey, California

DIGEST

Perhaps the weakest link in the chain of steps involved in taking impressions of individual teeth, whether in reversible hydrocolloid, or in one of the elastic materials, is to obtain a sharp, definite impression of the gingival portion of the preparation. This article presents the six steps in the procedure to secure this retraction which the author has found to be eminently satisfactory.

Various Methods in Use

Many techniques used by operators range from caustics to surgery and nearly all have been found to be less than perfect, particularly in full crown preparations, whether there be shoulders or chamfer margins.

Drug Impregnated Cord—Perhaps the most popular technique is the use of a cord impregnated with an astringent drug such as zinc chloride. These cords are generally soaked in a solution of zinc chloride and allowed to

dry. The cord is then wrapped around the prepared tooth and pressed forcibly with an instrument into the subgingival space and allowed to remain there for three to ten minutes or more.

Cautery or Surgery—Some operators use cautery and some resort to

surgery. Many operators pack the areas with gutta percha for 24 hours and take the impression at a subsequent appointment. All of these methods have been tried over the years but none has been completely satisfactory in all cases.



1.
Alginate impression taken before any cutting is performed.

2.
Alginate impression filled with quick curing acrylic forcibly placed over preparations.



Technique Adapted

The technique described is one used by the author for about three years with excellent results. The procedure is the same for single preparations as for multiple preparations. While most operators utilize the technique of making temporary crowns or three-quarter crowns in quick mouth-curing resin, these are usually produced at the end of the appointment *after* the impression has been made. In this technique the temporary crown, or bridge, is made when the preparations are finished and *before* the impression is made. The following steps are taken:

Step One—An impression is made of the area to be operated *before* any cutting is done on the tooth, or teeth as the case may be. This impression is made in rapid setting alginate, either in the mouth or on the study model if one is available. The latter is preferable particularly in a bridge, as the missing tooth or teeth can readily be set up in wax and the impression taken from the model so that in the tempor-

3. Shows the alginate impression after removal with the temporary acrylic crowns still in the impression.

4. The temporary acrylic crowns with the impregnated cord placed in the mouth.

5. This shows the cord still on the teeth after removal of the temporary acrylic crowns.

6. Hydrocolloid impressions of 4 complete crown preparations. (Note the visible shoulders on the bicuspid and the chamfer margins of the molars.)

ary bridge to be produced the missing teeth will be supplied. The impression is placed in cold water and laid aside until the preparations are completed (Fig. 1).

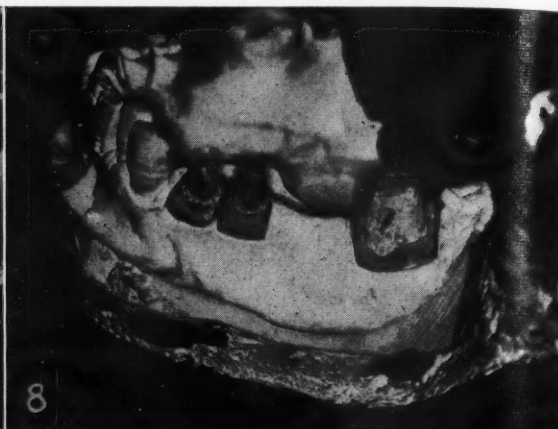
Step Two—After the preparations are completed the impression just described is filled with a quick setting acrylic resin:

(A) Flow a few drops of monomer into the impression and then add powder, slowly filling the impression of the operated teeth, alternately with monomer and powder on the vibrator until the mass becomes slightly firm. Use two bottles for this, one with monomer and one with powder, so the material can be easily placed in the impression exactly where wanted.

(B) While the impression is being filled with acrylic, the assistant flushes out all the debris from the preparations, and just before the impression with acrylic is placed over the operated teeth she thoroughly lubricates the entire area with petroleum jelly. This is particularly important if there happen to be acrylic restorations in the immediate vicinity.

(C) Hold the impression firmly in place in the mouth for four minutes (Fig. 2).

Step Three—After four minutes the impression is removed. Sometimes the temporary acrylic replacement comes out in the impression and sometimes



it remains on the teeth. In either case the acrylic is placed firmly into position on the prepared teeth and the patient closes into centric occlusion. The acrylic is removed from the mouth and trimmed roughly with a crown and collar shears. Figure 3 shows the temporary acrylic restoration in the impression.

Step Four—Wrap a piece of cotton cord which has been impregnated with 8 per cent zinc chloride carefully around each of the prepared teeth at the gingival border.

Step Five—After the cotton cord is in position, place the temporary acrylic restoration over the prepared teeth and have the patient close firmly into centric relation. Figure 4 shows the temporary acrylic restoration in the mouth with the impregnated cord under it. Leave the patient for five minutes with instructions to keep the jaws firmly together.

7.
Shows a typical hydrocolloid impression for a bridge.

8.
Shows the working model for a fixed Permanent bridge.

9.
Buccal view of finished Permanent bridge.

10.
Lingual view of finished Permanent bridge.

Step Six—At the end of five minutes remove the temporary acrylic restoration, flush the mouth, air dry, and take the impression. Figure 5 shows the area immediately after removal of temporary crown.

Completion of Procedure—In Figure 6 is shown a typical hydrocolloid

impression of four complete crown preparations. It will be noted that the shoulders on the bicuspid are plainly visible as well as the chamfer margins on the two molar preparations which are all placed from 1 to 1½ millimeters under the free margin of the gum tissue. After the impression has been secured the temporary crowns are finished and polished, then cemented to place with a paste of zinc oxide, eugenol, and petroleum jelly.

Summary

By utilizing the temporary acrylic crowns as a plunger with the astringent cord secured under them, a positive impression of the gingival portion of the preparation may be obtained with consistently excellent results. A typical impression, dies, and finished bridge are shown in Figures 7, 8, 9, and 10.

307 Professional Building

Saliva, Blood,

and DENTAL SLUDGE CONTROL

in Dentistry

BOYD F. SPRAGUE, D.M.D., Portland, Oregon

DIGEST

In any dental technique that is employed, saliva, blood, dental sludge, or a combination, in the operative field is an obstacle to efficient dentistry. With the emphasis on speed as an objective in dental technique, the prevention of these hazards in the operative area becomes an insistent problem. In this article approved methods of keeping the field free of saliva, blood, and dental sludge are discussed and illustrated.

Preventors

Saliva Prevention—This is most often accomplished with drugs, atropine and scopolamine being the ones most frequently used. Methods of administration are by intramuscular or intravenous injections, the dosage varying from 1/300 to 1/150 grain, depending on the size, weight, and susceptibility of the patient.

Antihistamines Effective Antisialagogues: When administered in several preoperative doses prior to the day of operation, antihistamines are useful. Twenty-five and 50 milligram tablets of Chlor-Trimeton,[®] taken once, twice, or four times daily for a day or several days before operating, depending on the size, age, and requirement of the patient, are effective in saliva prevention. If surgery is performed, healing is promoted, and nausea incidence after general anesthesia is decreased.

Excitement Reduced: Anxiety and fear can be prevented by concealing

dental equipment and preventing psychic stimulation through the eye gate. The dental equipment should be quiet running, avoiding irritation of the frontal lobe of the brain by the unnecessary stimulation of the auditory senses.

Inhibition of Pain: Local and general anesthesia are active factors in pain control and work indirectly, retarding saliva output.

Retardation of Body Functions: Preoperative sedation and the use of controlled operative sedation also prevent pain. Some forms of analgesia,

tranquilizers, and hypnosis are also implemental in decreasing saliva flow.

Blood Prevention—The use of drugs, special electrical equipment, and operator dexterity prevent the accumulation of blood in the oral cavity.

Local and General Factors: Local acting drugs such as epinephrine in 1:100,000 to 1:50,000 may be used by injections or topical application. General acting drugs may be injectable or taken orally in tablet form; some drugs affect the vessel walls while others affect the clotting ability of the blood itself.

Transfusions: Blood transfusions and blood serums may be given to



1.

The equipment used in connection with the radio scalpel, controlling hemorrhage most effectively.



2.
The removal of loose inflamed inter-dental or gingival tissue with the electro-surgical loop.

prevent excessive hemorrhage in treating hemophilia and other blood dyscrasias.

Cauterization: For prevention of blood in the operative field by cauterization, three methods are suggested: (1) Heat, used in the low voltage electric cautery, which acts by searing the tissue. (2) The use of chemicals, such as phenol and acetic acid which are noninjectable and are topically and minutely applied. (3) Radio electrocoagulation or fulguration, stopping hemorrhage readily without extensive tissue injury, when properly used (Fig. 1).

Resection by Radiosurgical Cautery: The removal of edematous hyperplastic tissue resulting from the irritation of calculus or cavities below the gingival margins by resection with radiosurgical cautery is a distinct advantage in preventing hemorrhage which may occur in subgingival cavity preparation as illustrated in Figure 2.

Note: Care should be taken to avoid explosive hazards, however, if volatile general anesthesia agents are used in the presence of electronic or high frequency equipment.

Local Measures: (1) Pressure by local compress, (2) operative care and dexterity are measures in blood control, avoiding injury to the tissue

thereby inducing unnecessary flow of blood.

Dental Sludge Prevention—Dental sludge consists of tooth or restoration material grindings or shavings which are suspended in the saliva, blood, or mouthwash within the oral cavity.

Dental sludge can be prevented to a degree by the application and use of special instruments designed by the author to be used in the following sequence of steps in the preparation of an average dental restoration:

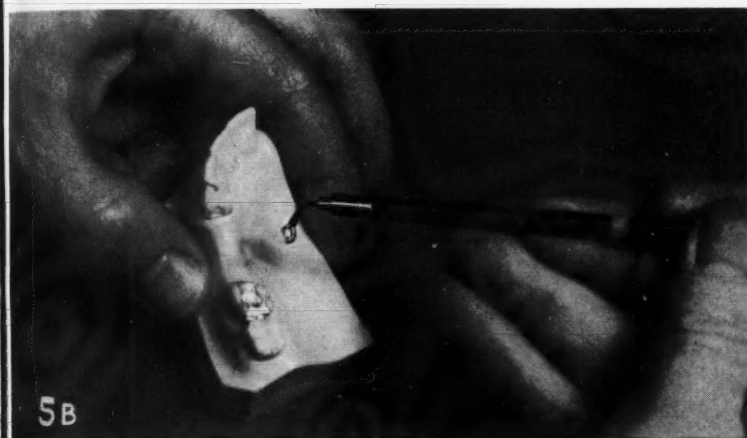
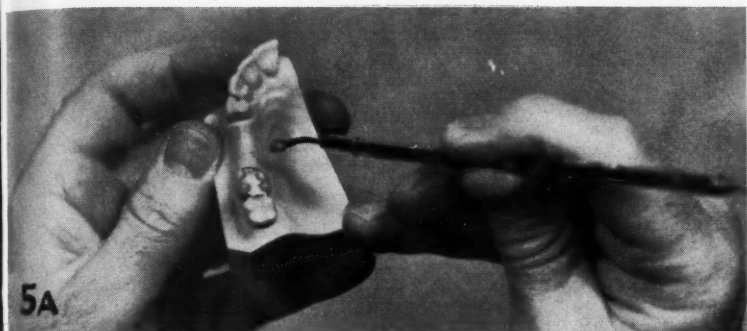
1. The open-loop applicator C-4 (Fig. 3) is ideal for the placing of cavity liners, such as varnishes or liquid methyl cellulose liners and cappings. These and similar materials can be picked up on the tip of the instrument and flowed to an exact spot on the tooth. The instrument is used much like the architect's pen, thus avoiding useless covering of cavity walls.

2. In deep cavities requiring cement bases the Carrier D-6 (Fig. 4) may



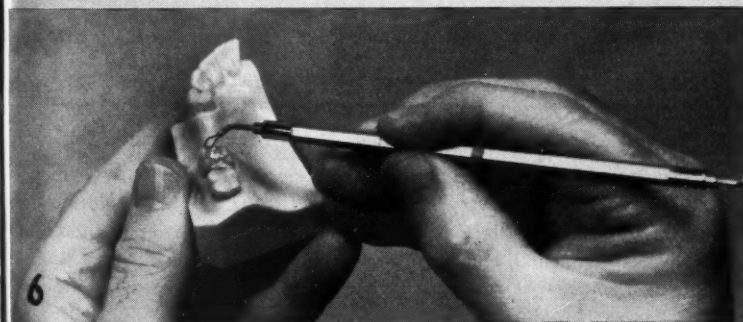
3.
The C-4, in the manner of an architect's pen, picks up and spots the cavity liner in the exact spot. Color indexed for easy recognition.

4.
The D-6, carrier, used for carrying and spotting cement bases over a small and exact area.



5. A and B.

The B-4 and 6, skimmer instrument, used in skimming off the surface of sloppy amalgam mixtures, holding easily the removed portion of material.



6.

The A-6 Carver. The diamond-shaped, wire-headed carver, carves the setting amalgam easily. Without fracture of the edges or digging uncontrollably into the fresh restoration, it produces a smoother filling more easily finished and polished, with more perfectly adapted restoration margins.

be used. The cement is mixed to the same consistency as for bridge cementation, a spot of it is then carried to the cavity and placed. This instrument is designed so that the soft, sticky material will flow from the instrument to the cavity surface easily,

the material having greater attraction for the floor of the cavity than it has to the instrument of application.

3. The double-loop amalgam skimmer, B-4 and 6 (Fig. 5) is used to pick up the excess of soft packed amalgam. The skimmed amalgam is carried back

to the crucible or squeeze cloth and removed from the instrument by a light sharp tap on a hard object, such as the rim of a glass mortar. Repacking is accomplished, and primary carving or shaping is done with the same double-loop skimmer. The carved-off material has been kept clean by preventing it from falling into a debris-covered rubber dam or into a watery pool of saliva in the floor of the mouth, thus preventing one form of dental sludge.

4. The dental art carver A-6 (Fig. 6) is used to accomplish the secondary or final carving, rapidly forming the grooves and picking up some of the shavings in the diamond-shaped head of stainless steel wire.

Eliminators

Eliminators of saliva, blood, and dental sludge deal with the evacuation of these elements from the oral cavity.

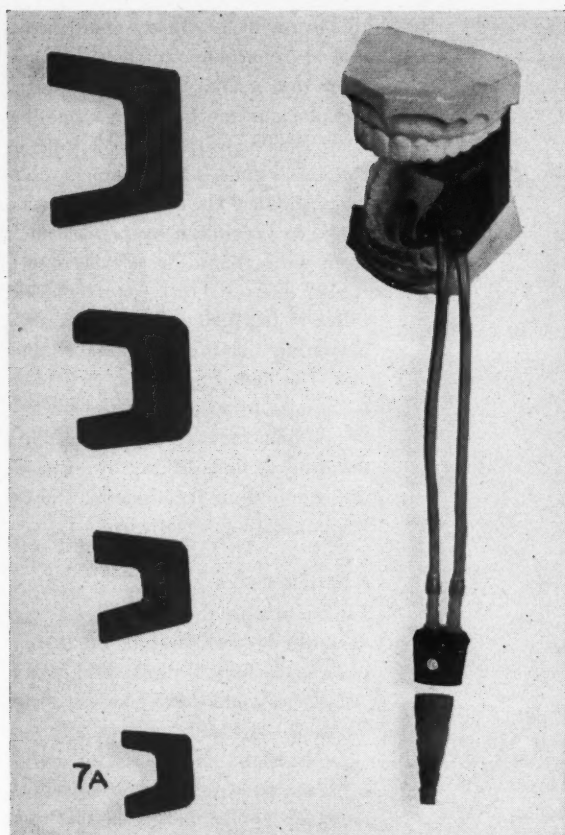
Sponges and Packs: Swabbing and mopping processes are usually accomplished by the dentist or nurse, using cotton sponges or packs (either damp or dry). This method is used particularly on patients in deep analgesia or general anesthesia.

Mechanical Methods: Included with the mechanical processes in saliva, blood, or dental sludge elimination are the following:

A. Patient-operated devices such as unit aspirators and ejector tips.

B. Nurse-operated equipment consisting of suction machines of high and low air volume. The nurse directs and controls the suction tip.

C. Automatic and multi-purpose devices such as the twin-tube oral evacuator (Fig. 7) will work from any type of suction machine. This is an accessory of special advantage, because when it is used, the operative area is unencumbered except for the plastic tubes. The nurse's hands are left free to assist the dentist. The bite block, which holds and directs the tubes, is placed on the opposite side from the field of operation. This equipment is a particular boon to the patient, as it gives him something to rest his jaws upon and keeps the mouth free from excess liquids at the same time.



7, A and B.

The twin tube oral evacuator and bite rest in its four selective sizes is comfortable for the patient, providing an object to rest jaws upon during long procedures. It will work on either the right or left side by lengthening or shortening the ex-

tension of the tubing through the holes in the bite rest. The unit is particularly useful with children when the rubber dam cannot be used; the field is kept dryer, and talking is prevented.

Restrictors

The rubber dam has long been the most effective agent for the restricting of these impeding elements from the dental operative field. With many of the high-speed techniques developed today, however, the rubber dam is becoming more limited in its application. With more effective machine and drug control for saliva, blood, and dental sludge, the dam is of less benefit in everyday dentistry. This is not to discourage or condemn the use of the rubber dam. Other supportive means of control are available, however.

Absorbent Materials: Some cotton rolls and sponges are more absorbent than they were previously, and some types are extremely useful for this restrictive purpose.

Note: Today, more patients are re-

ceiving light general anesthetics for long and trying dental procedures. Patients who were formerly excluded from dentistry because of chronic illness, physical or mental, can now receive dentistry.

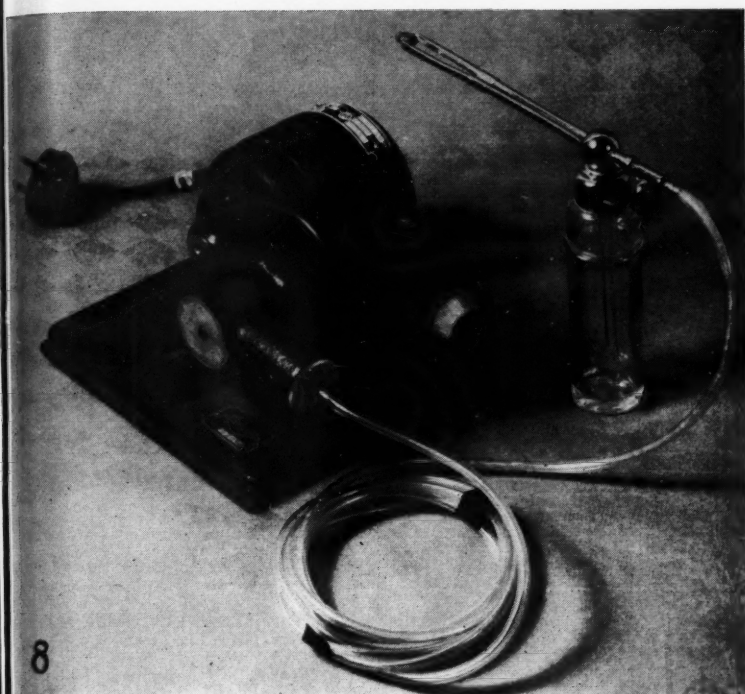
Air Passage Maintained: Thin sheets of plastic, sandwiched between layers of gauze are effective in restricting materials, solid or liquid, from entering the throat during general anesthesia. These air and liquid-proof sponges also encourage general anesthesia patients to breath through the nose, rather than through the mouth, when only the nosepiece is used for maintenance during dentistry.

Aids

The thumb valve (Fig. 8) is an effective aid because it makes possible

a soft, gentle, intermittent spray on revolving instruments. A solution of methyl benzethonium chloride may be used, spraying it upon a tooth that is being cut with a diamond stone or carbide bur. The spray is produced by intermittent jets of air from a small Hollenback compressor, permitting less than half the usual amount of dental sludge for the same cutting procedure than with other spray equipment.

The methyl benzethonium chloride 1:4000 or 1:6000 solution is a positive aid to control because when it is sprayed into a tooth cavity, debris is cut loose faster and dental sludge is made thinner, saliva ropiness is reduced, and the sludge disposed of more easily. This solution, when used from the spray bottle, cools, sterilizes, and cleans the entire operative field.



8. The thumb valve on the DeVilbiss bottle is just a bleeder valve, the intermittent jets of air coming from the small Hollenback condenser (Cleveland) supplies a gentle spray for diamond stone cutting, or when using high speed drills in dental preparations.

Conclusion

The menace of saliva, blood and dental sludge in the oral cavity is better controlled with the methods and instruments described in this article.

Effective management of all oral secretions and foreign material is the key to faster, more efficient, and more comfortable dentistry for patient and dentist.

10 S. E. 39th Avenue

Isolation Stress in Medical and Mental Illness

EUGENE ZISKIND, M.D., Los Angeles

Sufficiently prolonged isolation from society or deprivation of sensory stimuli can produce mental abnormalities in the form of hallucinations, anxiety states, depression, and paranoid symptoms. Conditions likely to induce these phenomena occur clinically in patients kept in the dark after cataract operations, in persons with severe impairment of hearing, in poliomyelitic victims confined to respirators, in prisoners kept in solitary

confinement, and in refugees handicapped by language difficulties. Monotony and isolation also affect certain occupational groups such as long distance truck drivers, monitors of radar screens, watchmen, and assembly-line workers. The underlying nervous mechanisms are not yet understood, but prevention and treatment are simple.

From *The Journal of the American Medical Association* 168:1427 (November 15) 1958.

Treatment of Gingival Inflammation

STANLEY J. BEHRMAN, B.A., D.D.S.,
STANTON B. FATER, D.D.S.,
and DAVID L. GRODBERG, D.D.S.

Experiment Undertaken

A new oxygenating agent, Amosan® (sodium peroxyborate monohydrate) was used in 129 patients in the outpatient Dental Clinic of the New York Hospital. The results of the use of this agent as an adjunct in cases of inflamed bleeding gingivae were compared with the results obtained with sodium perborate NF and sodium borate. A nonoxygenating substance, sodium chloride, was used as control. A colored photograph was taken at the beginning of the test, another was taken after two days' treatment, and a third after one week of treatment.

Comparative Results

Using gingival bleeding as a criterion, the four agents used produced improvement in 55 to 65 per cent of the patients by the second visit. Continued improvement (to 93.3 per cent) among the users of the new oxygenating agent, sodium peroxyborate monohydrate, indicated superior efficiency of this new oxygenating agent.

New Agent Effective

After one week buffered sodium peroxyborate monohydrate produced 92.3 per cent improvement. Sodium perborate NF produced 50 per cent, sodium chloride 44 per cent, and sodium borate 33.3 per cent improvement. These results prompted the use of sodium peroxyborate monohydrate in acute necrotizing ulcerative gingivitis. Marked abatement of symptoms was produced in 48 hours. Within five days of home care with buffered sodium peroxyborate monohydrate manipulative procedure could be undertaken in the presence of minimum tissue inflammation and without patient discomfort.

There were no adverse reactions to the use of buffered sodium peroxyborate monohydrate.

Adapted from *Journal of Dental Medicine* (October) 1958.

The MAXILLARY OCCLUSAL RIM

as a Basis for the Design

of Intraoral Radium Applicators

ALLEN FRED GOLDBERG, D.D.S.*,
Chicago

DIGEST

Radiation therapy occupies an important role in the treatment of squamous cell carcinoma, the most prevalent malignant lesion of the oral cavity, of the buccal mucosa, palate, and maxillary gingiva¹. These lesions comprise twenty-five per cent of all primary intraoral squamous cell carcinomas². A basic design of radium applicators for use in treating neoplasms occurring in these regions is a modification of the maxillary occlusal rim. Alterations of the rim are made in accordance with the location, size, and shape of the lesion.

Dental Skills Required In Construction

In cases in which it is desirable to treat malignant oral lesions by irradiation³, the roentgenologist, if using radium or a similar source of radiation, requires the aid of the dentist in designing and constructing an appliance to hold the radioactive source in proximity to the lesion. The skills and techniques necessary to the construction of such an appliance are essentially the same as those required to design and construct successfully an intraoral prosthesis.

Basic Rules

Five basic rules must be kept in mind while designing the intraoral radium carrier:

1. Contact the entire lesion, including a border of normal tissue.
2. Provide enough bulk and tissue coverage to contain the radium and provide for the shielding of normal tissue.
3. The appliance must be stable enough to prevent position changes of the radioactive substance.

4. The patient must be able to insert and remove the appliance unaided.

5. The design must be such that the patient will be able to tolerate wearing the appliance.

Procedure

The following steps are completed:

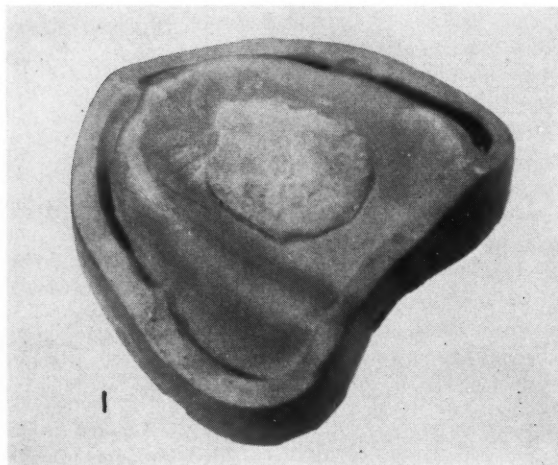
1. An alginate impression is taken of the maxillary arch, including the neoplasm, along with a wide border of normal tissue. A model is made of dental stone.

2. A baseplate is adapted to the denture-bearing area and is extended over the neoplasm onto the normal tissue border. The portion of the baseplate overlying the area to be irradiated is built up to a thickness of one centimeter or more with baseplate wax⁴. These procedures assure the practitioner that the first two rules are fulfilled, and provide a measure of stability.

3. A wax occlusal rim is added to the baseplate in order to provide an occlusal surface, thereby increasing the stability of the appliance and facilitating the patient's ability to tolerate the appliance.

4. The remaining portions of the baseplate are inspected for thin areas and angles which are too acute for the adaption of lead sheet.

5. After correcting the thin areas to increase the strength of the ap-



1.
A stone model of the upper arch including the denture-bearing area and the neoplasm.

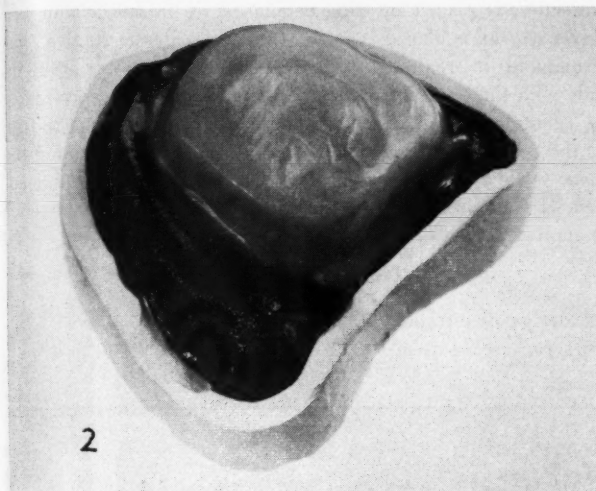
*University of Illinois Research and Educational Hospitals, Chicago, Illinois.

¹Ward, G. E., and Hendricks, J. W.: *Diagnosis and Treatment of Tumors of the Head and Neck*. Baltimore, Williams and Wilkins Company, 1950 pp. 242-270.

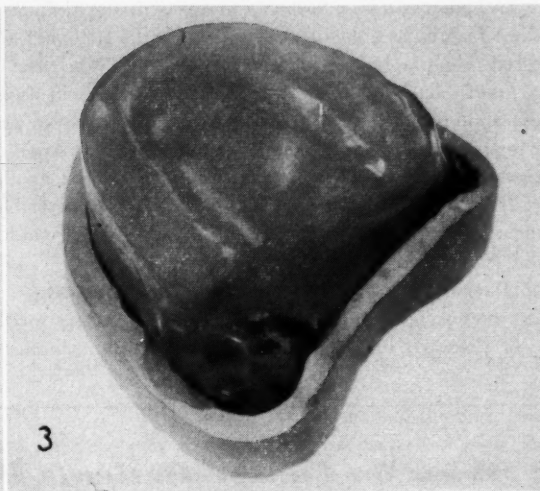
²Sharp, G. E.; Bullock, W. K.; and Hazlett, J. W.: *Oral Cancer and Tumors of the Jaws*. New York, McGraw-Hill, 1956, p. 1, pp. 158-240.

³Pollack, R. S.: *Tumor Surgery of the Head and Neck*, Philadelphia, Lea and Febiger, 1957, pp. 18-21.

⁴Pyott, J. E.; Bruder, V. F. J.; Manion, W. J.; and Ward, G. E.: *Leaded Resinous Applicators for Intraoral and Extraoral Radium Therapy*. Am. J. Roentgenol. 47:613 (April) 1942.



2. A baseplate adapted to the denture-bearing area and a centimeter of wax placed over the area to be irradiated.

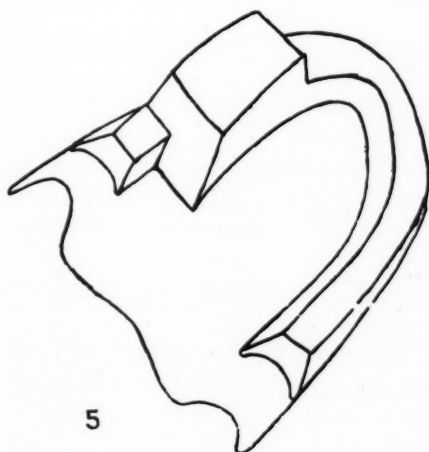
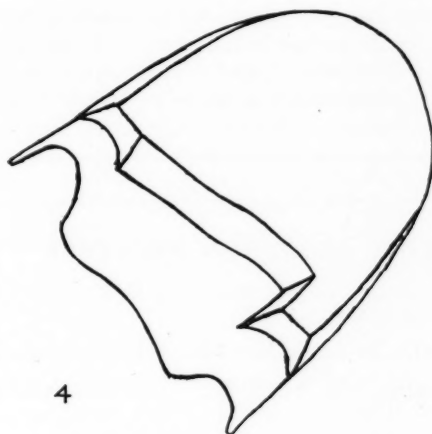


3. The completed wax model.

4. A possible design covering the anterior one-half of the hard palate.

5. A possible design for a lesion of the alveolar ridge and buccal sulcus.

6. This design would be useful in irradiating lesions at the junction of the hard and soft palate.



pliance and smoothing the angles which would present difficulty when placing the lead shield, the wax model is ready to be tried in the mouth.

Space Provided for Lead Barrier—

1. The wax is tried in the patient's mouth and trimmed to allow for occlusion and tissue contour. Surfaces which are to be shielded must have an additional two millimeters of clearance to allow space for the lead sheet.

2. In addition to providing an opportunity to check the wax model before processing, the try-in provides a convenient time to instruct the patient in the insertion and removal of the appliance.

3. The wax-up is flaked (in the same fashion as a denture) and processed in autopolymerizing acrylic.

Final Steps—1. After deflasking the appliance, the flash and all other irregular projections are removed and the surface pumiced.

2. The slots are cut for the placement of the radioactive source, and the lead sheeting is attached to the appliance as a protective shielding for the normal tissue.

3. Beeswax, intended for retention

of the radium capsules, is placed in the slots and a layer of wax is placed over the lead shielding in regions which will occlude with the opposing dentition of the edentulous arch in order to equalize the opposing forces.

4. The appliance is now ready to have the radioactive source set in place and can be applied to the lesion.

Summary

A basis for the design of intraoral radium applicators for use in treat-

ing neoplasms of the buccal mucosa, palate, and maxillary gingiva has been presented, and it has been indicated that the dentist is a valuable co-worker in a project to irradiate such lesions. The basic rules for the construction of intraoral radium applicators were listed and their manner of execution briefly described.

840 South Wood Street

Why Do Cancer Patients Die?

JAMES D. HARDY, M.D., Jackson Mississippi

Surgical thought has been widened, deepened, and extended to embrace the concept of cancer as a systemic or biochemical disease, radiating initially from a single focus but later from metastases as well. It is admissible in surgical circles now that both surgery and radiation are

frequently inadequate and, of course, cancer chemotherapy is in its infancy. However, above all, our concepts have been developed to the point that cancer is clearly recognized for the metabolic aggressor that it is. The cause of death in the presence of far advanced cancer is

an extensive derangement of normal biochemical functions and, in this respect, the similarity between malignant disease and sepsis is once again underscored.

From Editorial, *Surgery, Gynecology and Obstetrics* 105:369 (March) 1959.

ANNOUNCEMENT OF BOOKS RECEIVED

HANDBOOK OF DENTAL PRACTICE, Edited by Louis I. Grossman, D.D.S., Third Edition, Philadelphia, J. B. Lippincott Company, 1958. Price \$14.00.

HANDBOOK OF BALANCED ANESTHESIA, By Sylvia M. Shane, M.D., Baltimore, Lowry & Volz, 1958.

YOUR CHILD'S TEETH, By Robert J. Fanning, B.S., D.D.S., M.S., New York, Vantage Press, 1959. Price \$2.95.

FUNDAMENTALS OF GENERAL ANESTHESIA FOR STUDENTS AND PRACTITIONERS OF DENTISTRY, By John Adriani, M.D., Springfield, Illinois, Charles C Thomas • Publisher, 1959. Price \$6.50.

ORAL DIAGNOSIS, By Donald A. Kerr, D.D.S., M.S., Major M. Ash, Jr., D.D.S., M.S., and H. Dean Millard, D.D.S., M.S., St. Louis, The C. V. Mosby Company, 1959. Price \$10.00.

THE FAMILY MEDICAL ENCYCLOPEDIA, by Justus J. Schifferes, Ph.D., Boston, Little, Brown & Company, 1959. Price \$4.95.

MODIFIKATION DES ARTIKULATORS UND DER AUFSTELLREGELN FUR VOLLPROTHESEN, by Gysi, Bern, Switzerland, Verlag Hans Huber, 1959. Price Fr./DM \$15.00.

YOUR DENTIST AND YOU, By Charles M. White, D.D.S., New York, The American Press, 1959. Price \$2.50.

AN INTRODUCTION TO PERIODONTIA, By Henry M. Goldman, D.M.D., Saul Schluger, D.D.S., D. Walter Cohen, D.D.S., Bernard Chaikin, D.M.D., and Lewis Fox, D.D.S., St. Louis, The C. V. Mosby Company, 1959. Price \$7.75.

CLINICAL DENTAL HYGIENE, Edited by Shailer Peterson, B.A., M.A., Ph.D., St. Louis, The C. V. Mosby Company, 1959. Price \$6.75.

OPEN DOOR TO HEALTH, By Fred D. Miller, D.D.S., New York, Devin-Adair Company, 1959. Price \$3.95.

THE SEDIMENTATION RATE OF HUMAN ERYTHROCYTES, By Frank Wright, M.D., New York, Vantage Press, 1959. Price \$2.50.

A Clinical Application of HYPNOSIS and HYPNOANESTHESIA in Dentistry—Part Two

A. A. PAPERMASTER, D.D.S.* , Fargo, North Dakota

DIGEST

This is the second in a series of three articles on the subject of clinical hypnosis and its uses in the dental office. In this installment the author presents explicit directions for using the technique and lists the types of patients to whom hypnosis would be suitable, accompanying each category with a case history illustrating the application and the result.

Procedural Considerations in Hypnosis

In preparation for a dental operation under hypnosis the patient is sometimes told, "You are not going to feel anything," or "You are not going to feel this." The dentist is then surprised when the patient becomes restless and uneasy after the operation has begun. Such a statement is confusing, and when the patient actually feels the dentist's hands and instruments touch his tissues, and teeth, he loses confidence in the efficacy of hypnoanesthesia.

Sense of Touch Retained — Although there is a difference of opinion among investigators, it would seem that the patient's awareness of

being touched is not eliminated by hypnosis. Experience has shown that deep hypnosis is not necessary to produce the anesthesia necessary for restorative dentistry. Patients should be taught the nature of hypnoanesthesia and what to expect. It will be shown later in the technique of hypnoanesthesia induction that the patient is taught to have only pleasant stimuli and impulses transmitted to the higher brain centers. It must be remembered that many subjects have never experienced anesthesia while some others imagine that pressure stimuli are pain stimuli.

Method of Induction—In the procedure for the induction of hypnoanesthesia the operator proceeds with the following instruction:

"You will now learn how to imagine hypnotic numbness. You will imagine your right hand becoming completely numb from the wrist to the fingertips. You will feel me touching your hand with an instrument but it will be pleasant." (The hand and fingers are now touched with the blunt end of the explorer.) "Your left hand is normal and when I touch it with the same instrument it may be sharp and even painful." (The left hand is now touched with the sharp point of the explorer.)

Process Repeated—"You will now imagine the right hand normal again with all numbness completely gone from the right hand. When I touch you with the instrument you will find you have normal feelings in your hand again. Hypnosis itself does not numb any part of the body. You must

imagine that the part of the body that is desired to be numbed must be numbed by you at my suggestion.

"In the same manner when I tell you that your gums and teeth are numb you will imagine that they are so. You will feel me touching your gums and teeth while dental treatment is being performed for you, but it will be pleasant. The sounds of the instruments used on your teeth will not disturb you in any way."

Hypnosis in Future Visits—The patient is prepared for hypnosis upon return visits to the office. The typical patient will accept these suggestions readily, and little or no time is required for subsequent inductions:

"You have now learned how to go into hypnotic sleep. You find you are relaxed and comfortable. From now on this preliminary training will not be necessary for you to go into hypnotic sleep; you will be able to go into hypnotic sleep at any signal that is given to you. At your next appointment when I tell you to relax and go into deep hypnotic sleep at the count of 5 you will do so, and when I tell you to imagine that your entire mouth and teeth are numb you will do so, and your dental treatment will be completed quickly and easily without any discomfort to you."

Unprofessional Use Discouraged—As a safeguard against unprofessional use of hypnosis, the patient is given this suggestion:

"From now on no one can place you in hypnotic sleep except a licensed physician or dentist and then only when you desire medical or dental care. When hypnosis is used properly for medical and dental care no harm can come to you. But we do not

*Clinical Instructor in Surgery, Department of Surgery, Medical School, University of Minnesota.

Author's Note: Some of the material in this article has been taken from an unpublished manuscript, "Hypnosis, a Psychological Adjunct to Dentistry," written by the author in collaboration with William T. Heron, Ph.D., Professor of Psychology, University of Minnesota. The author is indebted to Doctor Heron for his permission to use this material.

wish our patient to take any part in a theatrical or social display of hypnosis, so remember this and accept this suggestion."

Posthypnotic Suggestions—If it is necessary for the patient to visit another dentist who does not use hypnosis, and if the patient still desires the benefits of hypnoanesthesia, the following posthypnotic suggestions may be added:

"From now on when you are seated in a dental chair, your mouth and teeth will become numb and all dental treatment will be pleasant. When restorations are placed in your teeth the flow of your saliva will stop or be reduced. When you leave the dental chair the numbness will leave your mouth, gums, and teeth, and your entire mouth will return to normal. The flow of saliva will return to normal. If it is necessary for your dentist to make vitality tests of your teeth, the numbness will leave your teeth and will return when the tests are completed. Being seated in the dental chair you will inform your dentist of the suggestions just given you."

Auto-hypnosis—The patient may be taught auto-hypnosis, with the following posthypnotic suggestions:

"From now on you can place yourself in hypnotic sleep for dental services by seating yourself in a dental chair, relaxing, closing your eyes, and saying to yourself 'I am asleep. My mouth and teeth will become numb and my dental treatment will be performed pleasantly and without discomfort to me.' You will follow all directions that are given you by your dentist. You will be fully conscious of everything about you. When your dental treatment has been completed, you can awaken by saying to yourself 'I am awake' and you will then awaken refreshed and rested, and your entire body will return to normal. In case of any emergency you can always awaken yourself by saying 'I am awake'. You will be given a letter by me after I awaken you which you will give to your dentist. This letter will explain all your actions and what is expected of him while you are in hypnotic sleep."

The dentistry having been completed for this appointment, the pa-

tient must be awakened. The following suggestion is then given:

"Your mouth has now returned to normal feeling. Your whole body is normal. You are fully rested. When I count to 5 you will awaken refreshed and rested. 1-2-3-4-5 — you are awake."

Additional Factors in Successful Technique

The procedure described is only a bare outline of the total technique. Many other hypnotic and posthypnotic suggestions are reserved for the patient, depending upon external circumstances and the nature of the dental problem.

Patient Reaction Observed—The dentist must observe the patient's behavior and adjust his approach accordingly. He must be alert to any resistance or antagonism on the part of the patient to the suggestions given, and take measures to overcome it.

Mutual Agreement Desired—The successful clinical hypnotist cooperates with the patient while the patient cooperates with him. With most patients an inclination to dominance should be checked. The attitude of the clinical hypnotist should not be that of forcing the patient to do something, but rather of helping him to gain a desirable end.

Time Required for Application—The technique of hypnotic induction described requires a certain amount of time. This aspect will be discussed later. Hypnosis need not be applied, however, to every dental patient. It should be used in cases where it will be of particular value to the patient and the operator.

Dental Patients Who Need Hypnosis

Children—Fear of the dentist in children is often the result of unfortunate suggestions and impressions before coming to the dental office received from the movies, radio, comics, television, and conversations of people discussing dental operations.

These negative suggestions can be quickly corrected by hypnotic suggestions and the child transformed into a good patient.

Case Report 1—A boy, age 4 years,

8 months, was brought to the office by his mother. The child's screaming could be heard before he reached the door of the reception room and continued while his mother spoke to the receptionist.

Medical History: Measles and chicken pox. Vaccinated for small pox, whooping cough, and diphtheria. Had some warts and similar growths on the hands that were removed under local anesthesia by a pediatrician. The mother described the experience as a nightmare.

Dental History: None. Father once came home from a dental office and told of a painful experience.

Habits: Child cried easily at home, the slightest bump making him cry. Did not suck his thumb, but bit his fingernails. Father and brother do the same.

Dental Complaint: Child had no dental pain but complained of food sticking between his back teeth.

Treatment: 1. An appointment was made for the boy when a number of other children would be present for acclimatization to the dental office. When he appeared he was screaming, but this stopped as soon as he saw the children in the waiting room.

2. He did not come into the operating room when the children were asked to come in. Later a few youngsters were sent out to get him and he came in with them. His mother came along but she was asked to leave. Parents are not allowed in the operating room with children.

3. After a dental examination, he was seated and placed in hypnotic sleep. Induction time was twenty seconds.

4. While he was in the trance he was told that we were friends, that he would enjoy coming to the office, and that everything would be pleasant. He was given a prophylaxis and then awakened. The operation took ten minutes.

5. At his next visit he had a two-surface amalgam inserted in a lower first deciduous molar. He made no outcry at any time, either coming to the office or in it.

6. At his last session he had three two-surface amalgams inserted.

7. Total chair time for all visits

was one hour and twelve minutes. This patient has since visited the office for periodic examination entering and leaving the office without clamor.

Tense and Nervous Patients—Because of fear many adult patients do not return to the dental office as frequently as they should. In the dental chair they are tense and struggle for self-control. Most of these patients will accept hypnosis, and dentistry can be made much more pleasant for them.

Case Report 2—This patient was a beautiful young woman, age 21, married, wearing a fine fur coat, but who was afraid to smile because of rampant caries.

History: The patient had been kept awake all night with toothache. She had not visited a dentist since she was six years of age when one of her teeth was extracted without an anesthetic. When she was older, she had tried to make dental appointments, but the original trauma was so severe that if a friend, who had experienced hypnotic technique had not accompanied her to the office, she would not have appeared.

Treatment: 1. The patient was placed in hypnotic sleep and told that her teeth were numb and would be comfortable for 24 hours.

2. X-rays were taken, and alginate impressions were made for study models.

3. She was awakened and told to return the following day.

4. No operative dentistry was undertaken at her first appointment for three reasons:

(a) It was necessary to demonstrate the effectiveness of hypnotic anesthesia.

(b) Her first impression and treatment in the office were pleasant.

(c) She was allowed a day of rest which she physically needed.

5. The next day the upper bicuspids and molars were removed on one side along with a reduction of the tuberosity to allow for a better adaption of a denture.

6. A week later the posterior teeth on the other side were removed.

7. The cavities in the lower teeth were restored.

Treatment Continued: A month aft-

er the birth of her baby an immediate upper denture was inserted after the extraction of the six anterior teeth. Although procaine was used to reinforce the anesthesia during the removal of the teeth, there was no discomfort during the dental operations or postoperatively.

Patients with a Tendency to Psychosomatic Gagging—Hypnotic techniques are extremely useful in these instances.

Case Report 3—A male patient, age 67, was referred because extreme gagging made it necessary to perform all dental operations under general anesthesia.

Previous Dental History: Two partial dentures could not be used because of gagging and vomiting.

A palatal portion of an upper denture made to test his ability to tolerate anything in the mouth was also a failure. The patient gagged as soon as a mouth mirror was placed in his mouth.

Treatment: This patient had a difficult time entering the hypnotic state. He seemed to be trying too hard. He was told to close his eyes and keep them closed until told to open them; he was not to move any part of his body, but was to concentrate on resting and relaxing his arms and hands. He was left alone for 15 to 20 minutes. The operator then said to him, "You are now perfectly relaxed. When I count to 10 you will be in deep hypnotic sleep." He was then taught hypnotic anesthesia. It was suggested that dental treatment would be pleasant and that he would act in the chair as any normal patient. He was told to forget any unpleasant previous dental experiences because from now on his adjustment was to be excellent.

Operative Steps Under Hypnosis: 1. Because it had been impossible to take x-rays before he was placed in hypnotic sleep, a full mouth x-ray was taken without difficulty. The patient remained relaxed and quiet, with no sign of a gagging reflex.

2. While under hypnosis the patient was told that he would soon be getting some new teeth that he would be able to use as he had used his own when they were healthy; that he would be taught to have dental operations per-

formed in the future without discomfort, and that because his mouth would be completely rehabilitated he would be able to carry on normal conversations without keeping his lips tightly closed because of an unsightly mouth.

Anesthesia Reinforced: Although hypnotic anesthesia seemed complete, 2 cubic centimeters of procaine were used for reinforcement. The necessary teeth were extracted and an impression was taken of the upper mouth for a full denture. After routine hypnotic suggestions the patient was awakened, given postoperative instructions and asked to return the following morning.

Treatment Completed: 1. In hypnotic sleep two three-quarter crown preparations were made on the lower cuspids for a six-tooth anterior bridge.

2. Bite registrations were taken for the upper denture and 3 MOD amalgam restorations and 4 gingival amalgam restorations were placed in the lower posterior teeth. This was done without chemical anesthesia.

3. The wax crowns were carved direct. After casting the crowns, impressions were taken of the lower jaw for the anterior bridge.

Recovery Uneventful: Two months later the patient was wearing his denture comfortably and it had caused no gagging or distress. The patient also reported that he felt more relaxed and that he had a better outlook on life.

Patients for Whom A Chemical Anesthetic is Contraindicated—The following case history is typical of such a condition:

Case Report 4—A young woman secretary, age 37, reported with pain and swelling in the anterior region of the upper and lower incisors.

Examination: 1. Marked periodontoclasia was evident with the anterior teeth loose in their sockets.

2. The patient was wearing an upper and lower partial denture.

3. The patient had postponed having her teeth extracted because of fear of the hypodermic needle and a general anesthetic.

Treatment: 1. In hypnotic sleep, the patient was told that her mouth
(Continued on page 227)

Surgery of the

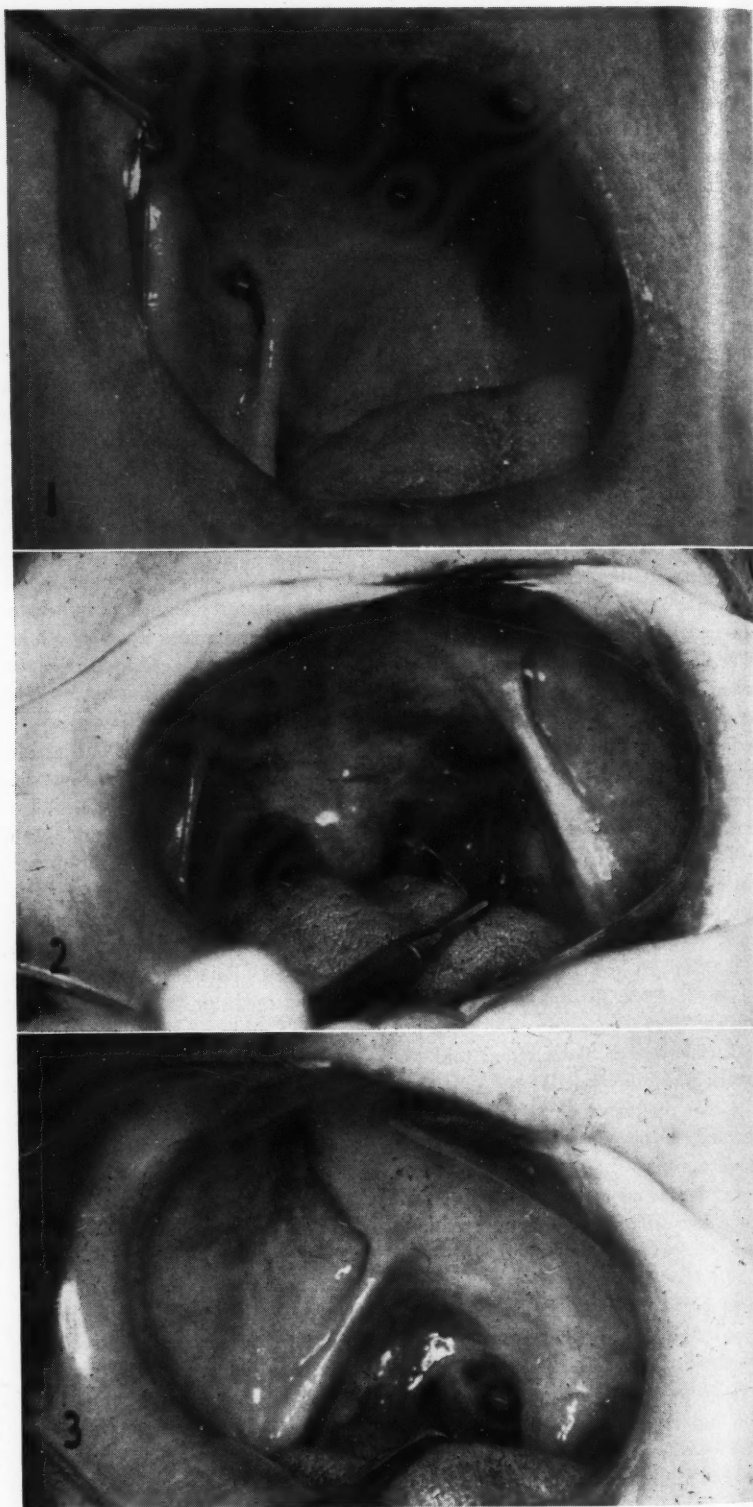
PTERYGOMANDIBULAR FOLD

JULIUS G. GODWIN, D.D.S.,
St. Louis, Missouri

DIGEST

Examination of a large series of palates and the surrounding structures will disclose a wide variation in the muscular arrangements of these regions. In particular, the muscles, ligaments, and other tissues in the hamular notch area may show different patterns, but are usually limited in their activity and present no problem to the prosthodontist. The author of this article instituted surgical correction of an abnormal pterygomandibular fold in a case where the usual forward thrust of the tendon in the hamular notch area prevented successful denture retention¹ (Fig. 1). In another case the abnormality of the fold on both sides made surgical correction necessary (Figs. 2 and 3). The methods used in the successful surgical procedures involved in these cases are described and the step-by-step technique adopted is presented.

¹Godwin, J.: Surgical Correction of Abnormal Pterygomandibular Fold, JADA 44:9-14 (January) 1952.



1, 2, and 3.

Unusual forward extension of the pterygomandibular fold into the oral cavity, preventing successful denture retention and stability.

Anatomic Considerations

The Pterygomandibular Ligament or Raphe—This is a narrow fascial band that extends from the hamulus of the medial pterygoid plate of the sphenoid bone to the mylohyoid ridge of the mandible. It is the junction point of the buccinator, palatopharyngeus, and the superior constrictor muscles.

The Pterygomandibular Fold—A fold of mucous membrane, which is elevated by the underlying pterygomandibular ligament and may become especially prominent, if the mouth is opened wide. It stretches from the region of the hamulus and the medial and posterior aspect of the tuberosity to the retromolar pad.²

The Internal Pterygoid Muscle: Almost directly behind the pterygomandibular ligament is the anterior border of the internal pterygoid muscle,² which plays an important part in infections of the peritonsillar and parapharyngeal spaces.

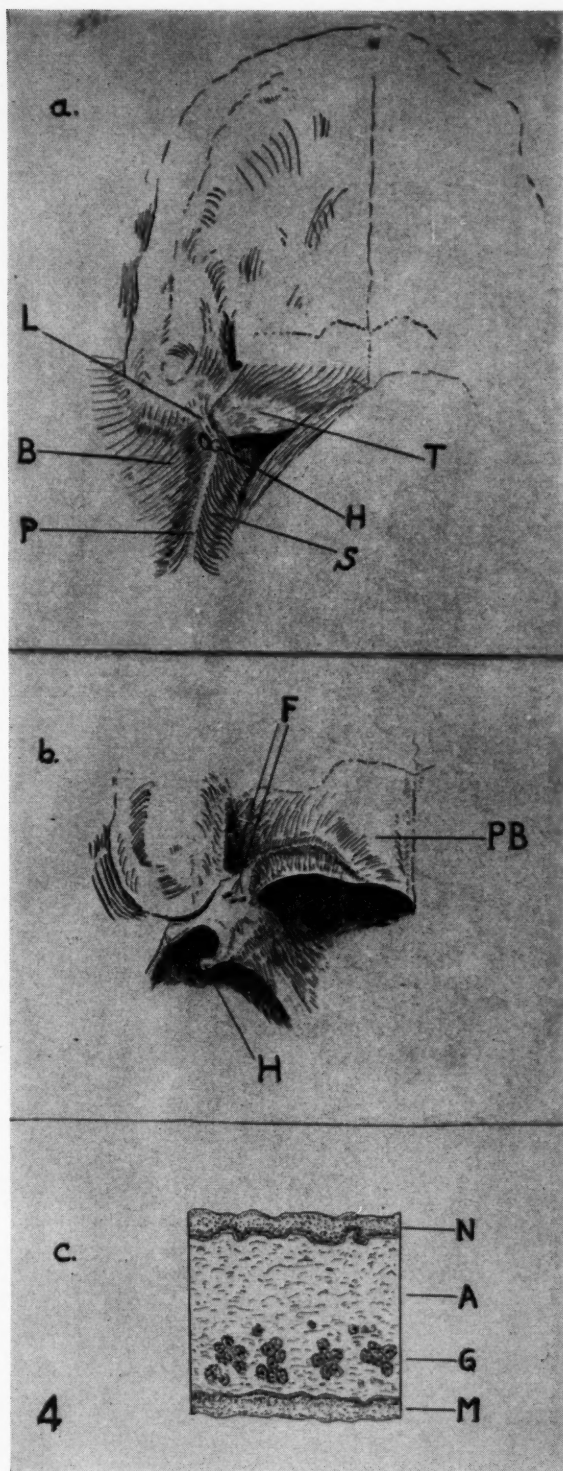
The Hamular Notch: Situated between the tuberosity and the pterygoid hamulus is the hamular notch (pterygomaxillary notch) which is bridged by a small ligament,² an extension of the pterygomandibular ligament.

Tensor Palati Muscle: Curving around the hamulus, with the small ligament above it, the tendon of the tensor palati muscle inserts itself into the palatine aponeurosis (Fig. 4).

Prosthetic Considerations

The region about the hamular notch forms a portion of the posterior boundary of the upper denture. The region is resilient in most cases, securing a seal for the periphery of the denture. At times the tensor palati, as it passes around the hamular process, may be a problem to the prosthodontist depending on the amount of collagenous tissue of this muscle. The pterygomandibular fold with its underlying ligament, tendons, and muscles may present unusual size, shape, and action which can prevent all efforts to obtain successful denture retention. Surgical intervention may be deemed necessary in such a case.

²Sicher, H.: Oral Anatomy, St. Louis, C. V. Mosby Company, 1949, p. 188.



4.

(a) Region of the hamular notch viewed from below, showing attachments of the various muscles and ligaments: B, buccinator; S, superior constrictor; P, pterygomandibular ligament; L, ligament bridging hamular notch; M, hamulus of the medial pterygoid plate of sphenoid bone.

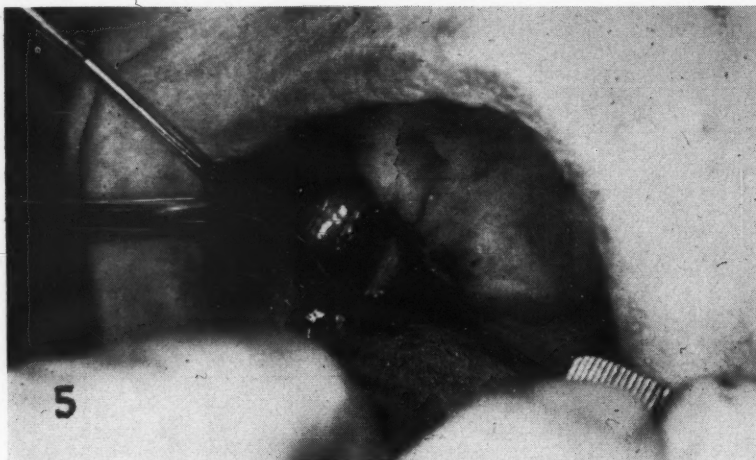
(b) Bony structures in the region of the hamular notch: F, greater and lesser palatine foramina; H, hamulus; PB, palatine bone.

(c) Cross section through soft palate near palatine bone: N, mucous membrane, nasopharynx; A, aponeurosis; G, lamina propria containing many glands; M, mucous membrane, mouth.

Surgical Consideration

It is usually not advisable to make injections in this region for fear of infiltrating the solution into the neighboring muscles, causing subsequent

edema and possible infection. The nerve supply of the structures involved is intricate and variable, with fibers of the fifth, seventh, ninth, and tenth cranial nerves participating. A



5.
Anterior portion of internal pterygoid muscle exposed which is quite tenuous in this case.

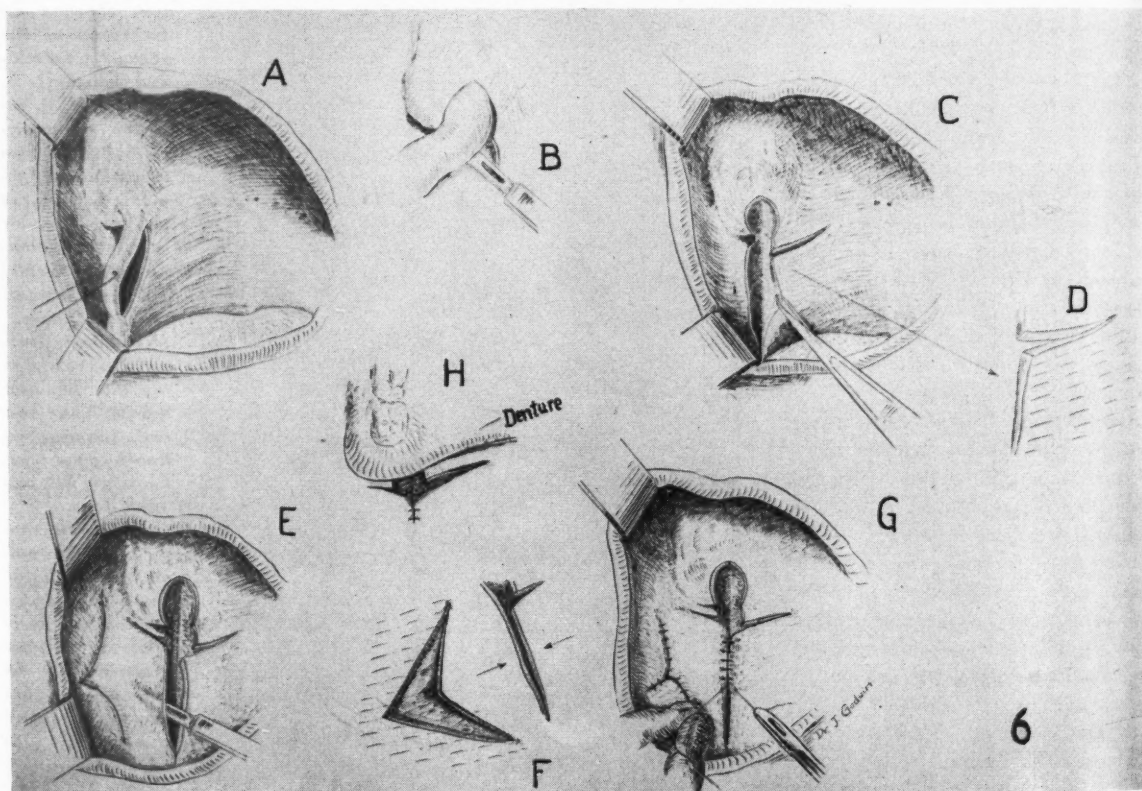
certain amount of trismus and painful deglutition would be anticipated from surgery in this area, since tendons, ligaments, and muscles are to be severed. Incisions should not be car-

ried so far posteriorly as to result in injury of the internal pterygoid muscle (Fig. 5). With the incision for severance of the buccinator muscle from the raphe, entrance is gained to the posterior half of the buccal space, which in turn leads into the pterygomandibular and parapharyngeal spaces. The tissues overlying the greater and lesser foramina should not be disturbed. It is necessary to preserve the blood supply and to secure a good seal for the periphery of the denture in that area.

Methods for Correction of Abnormal Pterygomandibular Fold

Method One—In Figure 6 a method of correction of the fold is shown.¹ The following steps were taken:

1. With the region under local



6.
Various stages in the correction of abnormal pterygomandibular fold (Method One).
(A) Pterygomandibular fold raised prior to excision.

(B) Upper portion of fold to be excised at distal end of tuberosity.
(C) Incision on palatal side of hamular notch after excision of fold.
(D) Palatal flap to be undermined.
(E) Outline of sliding flap to be raised from mucosa of cheek.

(F) Sliding flap advanced toward site of excised fold. The mucosa lateral to donor region is freely undermined.
(G) Approximation and suturing of wound edges by V-Y method.
(H) Denture in place following operation.



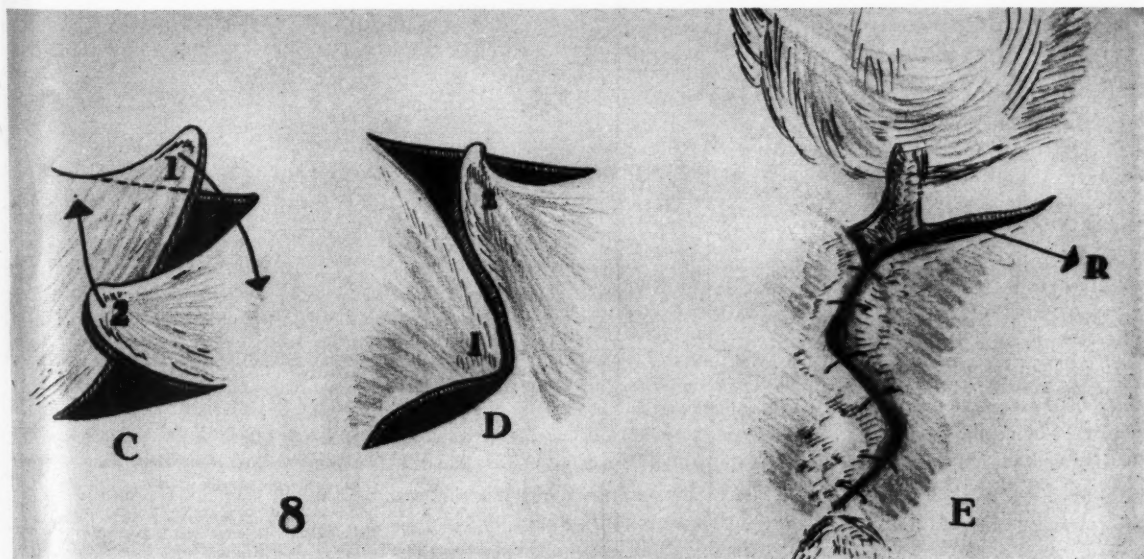
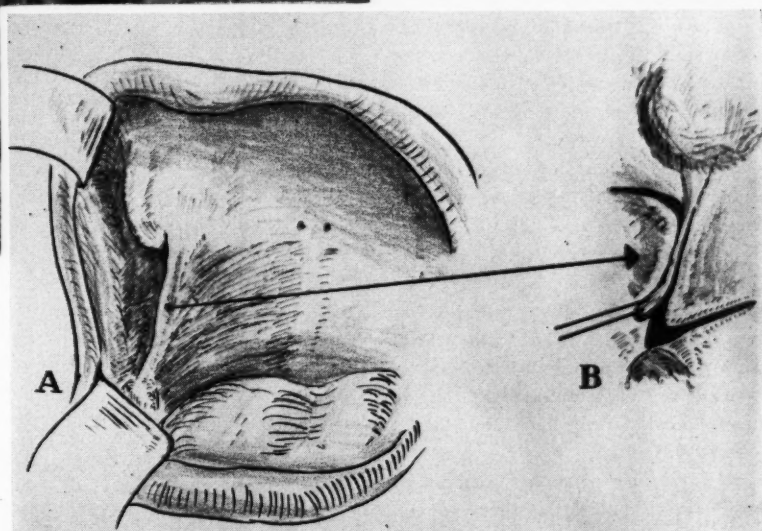
7. Dissection in the region of the hamular notch. Pterygomandibular fold and the ligament are cut away exposing tendinous anterior border of internal pterygoid muscle, IP.

CM—cheek mucosa
HP—hard palate
SP—soft palate
RP—retromolar pad
LN—lingual nerve

anesthesia the pterygomandibular fold was excised at its most forward extension. The incision reached from the retromolar pad area (virtually continuous with and indiscernible from the fold) upward to the tuberosity, and converged toward each other at a depth corresponding to the level of the hamulus or just short of the anterior border of the internal pterygoid muscle.

2. Figure 5 shows the anterior por-

8.
A and B, anterior portion of the pterygomandibular fold prior to excision. Two adjacent triangular flaps outline for Z-plastic. C and D, transposition of flaps. E, transposed flaps sutured. R, relief incision. (Method Two).



tion of this muscle exposed which is quite tendinous in this case.

3. A dissection of the region in question is shown in Figure 7.³

4. After excision of the fold, the tissue (particularly on the throat side of the fold) released itself and fell back toward the pharynx, indicating the extreme tension especially of the constrictor muscle before severance.

5. A horizontal incision was made, posterior to the posterior periphery of the denture area, from a point midway between the palatine foveola and the hamulus, which terminated at the incision of the excised fold.

6. The palatal flap thus outlined was raised and undermined in a medial and posterior direction.

7. A sliding flap as designed in Figure 6 was raised lateral to the excised fold from the mucosa of the cheek, shifted medially into its new position and sutured to the palatal flap.

8. A relief incision distal to the tuberosity was placed for greater mobility of the buccal flap.

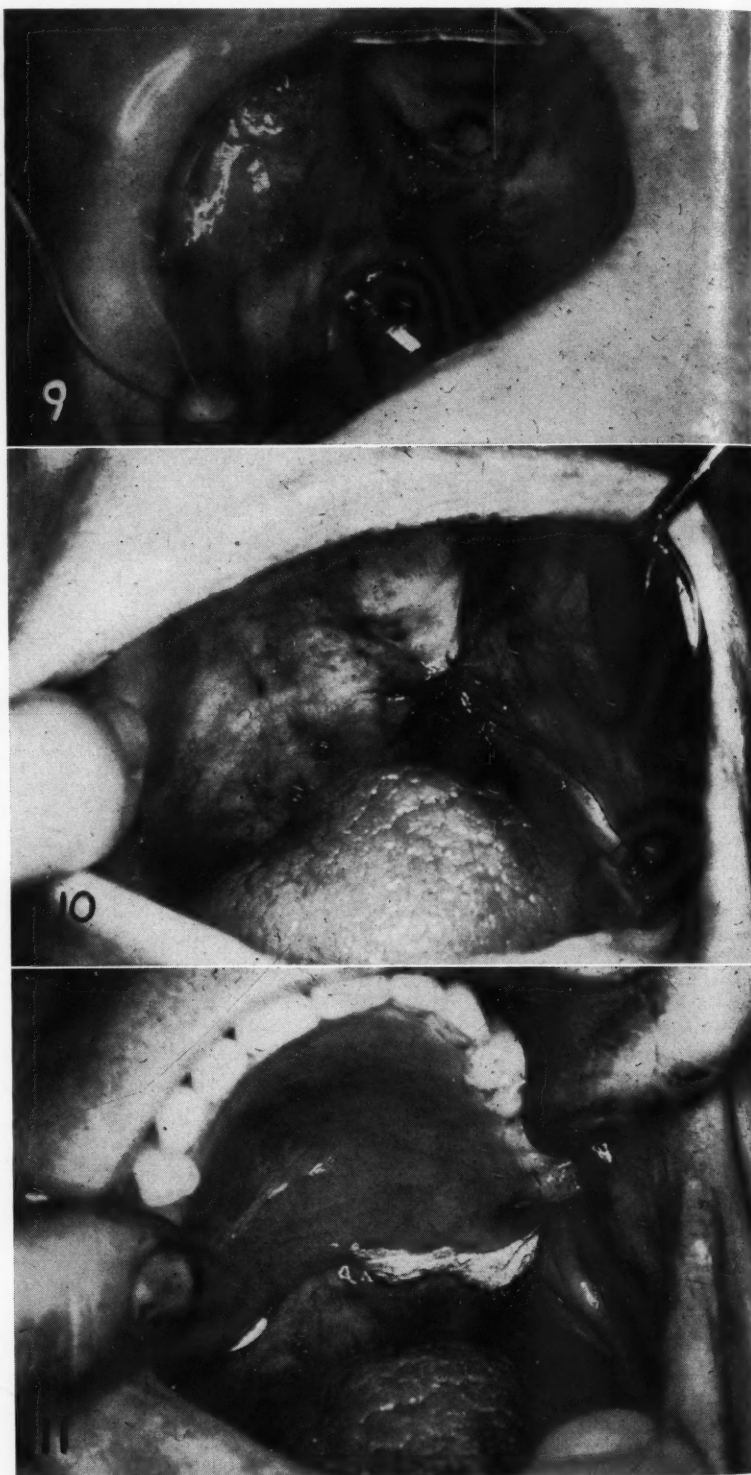
9. As shown in Figure 6, F and G, the V-Y method was employed to approximate and suture the various wound edges. It was hoped that these steps would help to facilitate approximation of the wound edges, lessen lateral tension of the flaps, and tend to offset contracture.

Method Two—Another method of correcting the abnormal pterygomandibular fold is shown in Figure 8. This was used bilaterally in the case illustrated in Figures 2 and 3. The following steps were taken:

1. The lines of tension of the "web" were changed by transposition of flaps known as the Z-plastic.

2. Two adjacent triangular flaps with rounded edges were outlined. Their common boundary represented the central line of the Z, which was also the most forward portion of the elevated fold, which was excised.

3. The arms of the Z were then marked at each end and on opposite sides of the central line as shown in Figure 8, being approximately parallel to each other and forming an angle of about 60 degrees with the central



line. The two flaps outlined were undercut and raised.

4. A relaxation incision was necessary to accomplish transposition of the flaps without too much tension. The

9 and 10.
Condition of operative sites immediately after surgery.

11.
Denture in situ with periodontal surgical dressing.

³Richins, C. A.: St. Louis University, School of Medicine.

flaps were sutured at strategic points.

5. The appearance of the sutured wound was also Z-shaped, but the long line of the Z was more transversely across the original "web" pull.

6. Immediately after the operation (Figs. 9 and 10) the upper denture, which had been previously built out in the hamular notch areas, was inserted with periodontal surgical dressings in the surgically treated areas (Figs 6 H, and 11).

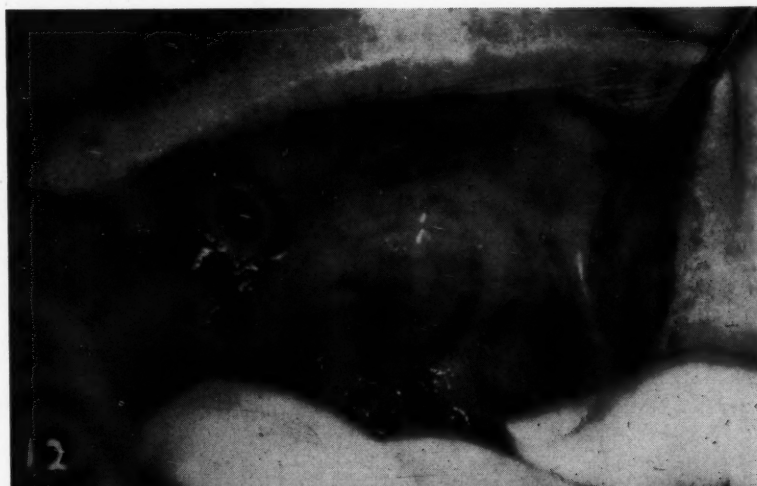
7. The patient was instructed to remove the dentures only for cleaning. To forestall contracture, muscle exercises by frequent opening and closing of the mouth were advised. The use of antibiotics was instituted in every instance. Obtaining hemostasis was no problem in any of the cases operated on.

Postoperative Changes

The tissues in the region of the operation were found slightly edematous during the first few days. A well-formed sulcus in the hamular notch area was present. When swallowing, the patients experienced some pain and soreness which disappeared within a week. The pain in the ear, as experienced in one of the cases, was probably due to a reflex irritation of the ninth nerve (an occasional complaint after tonsillectomies). Moderate trismus was noted for several days after the operations. There was no soreness from the denture, which acted as a splint to maintain the mucosal flap in intimate contact with the submucosal tissues and structures.

Stages of Healing

The raw surfaces not covered by mucous membrane were left to close spontaneously by scar tissue. After clot formation a yellowish membrane appeared at the site of the raw areas. About a week later it was replaced with a red or granulating tissue over which the mucous membrane grew. The possibility of contracture was eliminated to a certain degree by the surgical techniques employed and by coverage of the raw surfaces with epithelium as much as possible. It appears that the forces responsible for contraction are rather in the margin



12.

Appearance of the region (right side) about a month after the operation. Left side: abnormal pterygomandibular fold is still present.



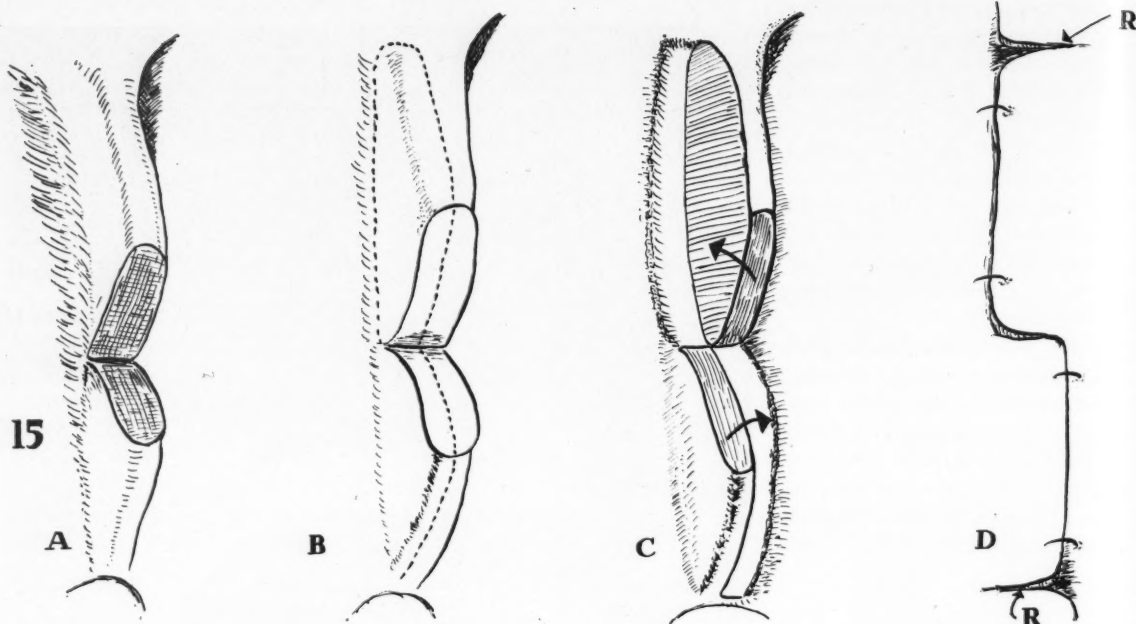
13.

Close-up view of the region (right side) after healing.



14.

Condition of operative sites several months after surgery.



of the wound than in the granulation tissue filling the center of the wound. In one of the cases (Figs. 2, and 10) the patient complained of soreness in the left buccinator muscle area for several days, apparently drawing the muscle tissue medially and traumatizing it on closure. This may be partly due to contracture and partly due to anatomic variation.

Functional Results

Prior to the operation the deformity in the hamular notch area presented unusual difficulties for the prosthodontist because of the forward thrust of the pterygomandibular fold when

15. Proposed method of correction of abnormal pterygomandibular fold (Method Three).

(A) Horizontal incision through the fold about midway between tuberosity and retromolar pad to a depth corresponding to the anterior border of the internal pterygoid muscle.

(B and C) Divide tuberosity portion of cut fold lengthwise and excise one half of this portion. Do the same with retromolar pad portion of the cut fold, excising the opposite half of that portion.

(D) Turn flaps toward the respective wound surfaces left after excision, make relief incisions (R) where necessary. Steps A and B may be reversed in order.

the mouth was opened. After surgical intervention there was considerable improvement in function, resulting in stability and retention of the denture. Although the area showed some scar mucous membrane, it was comparatively stable and immovable (Figs. 12, 13, and 14), not disturbing the effectiveness of the denture periphery. The area medial to the tuberosity and the tissues overlying the greater and lesser foramina were intact and could be used as valve-producing areas. As far as could be ascertained, the function of the muscles which were severed was not impaired.

8515 Delmar Boulevard

Oral Surgery after Adrenalectomy

Dental surgical procedures can amount to appreciable stress on a patient with adrenal insufficiency. In cancer patients, particularly, ablative endocrinologic procedures are becoming increasingly common, and adrenal dysfunction is seriously to be considered in any operative procedure, no matter how minor it may be believed to be.

The authors report four such surgical problems in which each patient had a history of cancer and adrenalectomy. Minor disorders may signify danger in such patients. The authors suggest that any of these occurrences is incipiently dangerous; nausea or malaise, vomiting, acute and high temperature, drop in blood pressure even

if within the patient's normal range, alteration of fluid or electrolyte balance, hypoglycemia, lethargy, and shock.

From *Diagnostoc Digests, The Cancer Bulletin* 10:34 (March-April) 1958. Piro, J.D., et al: Oral Operative Procedures in the Presence of Total Adrenalectomy, *J. Oral Surg.* 16:63 (Jan.) 1958.

The EDITOR'S Page

LAST MONTH in this department mention was made of the dire results that may follow breakage of a needle that is used in the mandibular injection. Fraser-Moodie,¹ from whom we quoted, based his observations on a series of 26 cases that were seen by referral to a large general hospital in Great Britain.

The hazard of needle breakage is greatly lessened if the dentist follows a few simple precautions. Although these warnings have been sounded before in the dental literature, and presumably by teachers of anesthesiology, a brief repetition of the rules might be helpful to alert the dentist who has not heard them, who may have forgotten them, or who has chosen to ignore them.

According to Fraser-Moodie, here are several suggestions to prevent the breakage of needles:

1) The commonest cause of breakage is the use of an old needle, or a needle that has been bent and then straightened;

2) no needle should be used for more than six injections. A needle that has been bent should never be used again under any circumstances;

3) the needle should never be buried up to the hub, and a short needle should never be used for a mandibular block. At least one-quarter of an inch should always remain exposed;

4) the bevel of the needle should be toward the bone. If the point strikes bone, or a tough, resistant structure such as the sphenomandibular ligament close to the attachment to the lingula, withdraw the needle a little before making the injection;

5) any deviation of the long axis of the needle from the long axis of the syringe is dangerous;

6) the syringe should be kept absolutely steady and adequately supported. It should not be possible for the syringe to sway unexpectedly when the needle is firmly embedded in the tissues. The needle may snap while the grip on the syringe is being altered;

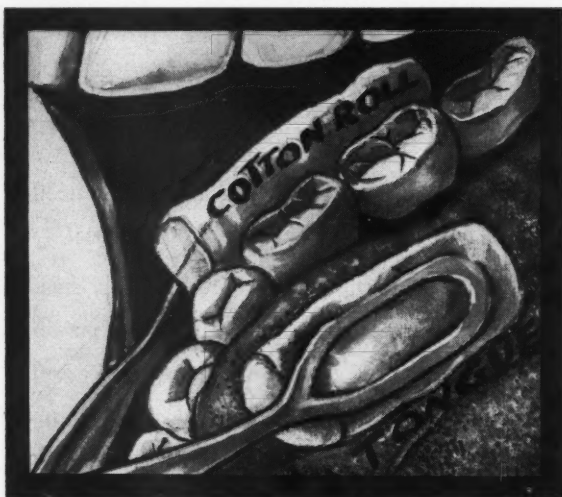
7) there should be satisfactory control of the soft tissue at the site of injection using the forefinger of the left hand;

8) a sudden and unexpected movement of the patient may cause breakage of the needle.

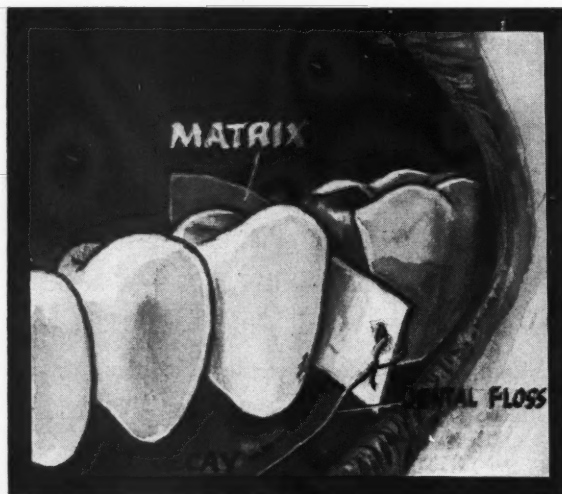
"Before deciding to give a nerve block there are several factors to be considered, and not the least of these is the cooperation of the patient. Careful assessment and management of the patient should be diligently practiced. Some patients will be deemed unsuitable for regional anesthesia. Others may be quite satisfactory patients if adequately sedated and expertly reassured."

The oral surgeon who undertakes the recovery of a needle fragment is faced with a special kind of problem. He is completing an operation that was begun by another person. The surgeon who is called into this kind of emergency must follow a planned surgical procedure that reduces trauma to the minimum, assures the precise location of the fragment, and allows the removal of the foreign body without damage to important structures in the area. Fraser-Moodie defines the problem clearly: "To carry out an exploratory operation without the assistance of pilot needles, accurate localizers, or an electric or electronic locator, is to invite failure and cause unnecessary operative trauma."

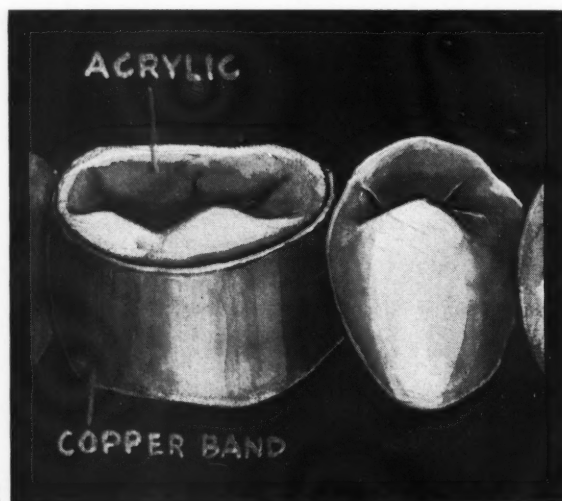
¹Fraser-Moodie, W.: Recovery of Broken Needles, Br. D. J.105:80 (Aug. 5) 1958.



1



2



3

Clinical and Laboratory

Immobilizing the Tongue

M. E. Teddar, D.D.S., Spartanburg, South Carolina

1. During operative procedures it is often necessary to immobilize the tongue.

Widen the distance between the prongs of a cotton roll holder. A cotton roll placed in the inner prong may be placed over the tongue to immobilize the organ.

Protection of Existing Restorations

John D. McGeehan, D.D.S., Flushing, New York

2. A piece of metal matrix material placed in the interproximal space will protect an existing restoration from damage when a cavity is prepared in the proximating tooth.

A piece of dental floss threaded through a hole in the metal will eliminate the possibility of the matrix being swallowed.

A Temporary Posterior Crown

Robert F. Bernal, D.D.S., El Paso, Texas

3. Contour a copper band and reduce the height to clear the occlusion. Fill the band with self-curing acrylic and place on the tooth. Have the patient bite into the soft mass and register the lateral movements.

READERS Are Urged to Collect \$10.00

For every practical clinical or laboratory suggestion that is usable, DENTAL DIGEST will pay \$10 on publication.

You do not have to write an article. Furnish us with rough drawings or sketches, from which we will make suitable illustrations; write a brief description of the

for SUGGESTIONS . . .

Cleaning Rubber Base or Silicone Impressions

Sanford Kent, D.D.S., Rochester, New York

4. Use a double rinse to clean the impression before pouring the model. First rinse: equal parts of hydrogen peroxide and surgical soap. Second rinse: a solution of carotid powder. Shake completely dry before pouring model.

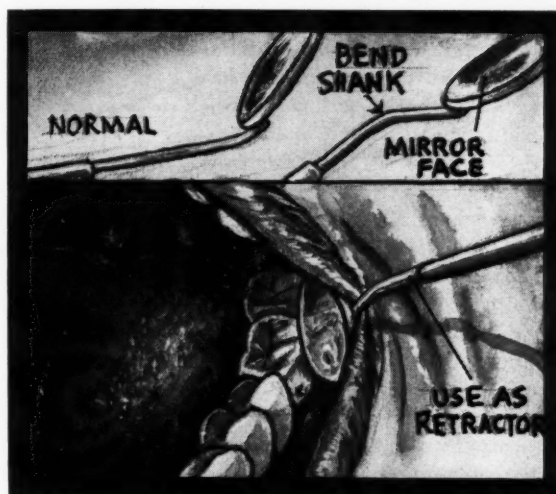


4

Mouth Mirror and Retractor

R. L. Schmetter, D.D.S., Elkhorn, Wisconsin

5. Bend the shank of a No. 4 mirror so that the mirror face is at an opposite angle to the usual position. With this adjusted angulation the mirror may be used as a cheek retractor and as a light reflector.



5

Protection of Teeth During Extraction

S. M. Dooreck, D.D.S., Brooklyn, New York

6. A piece of quarter-inch foam rubber wrapped around the lower forceps and held in place with cellophane tape will protect the upper anterior teeth should the forceps slip during extraction.



6

technique involved; and jot down the advantages of the technique. This shouldn't take ten minutes of your time. Turn to page 240 for a convenient form to use.

Send your ideas to Clinical and Laboratory Suggestions Editor, DENTAL DIGEST, 708 Church Street, Evanston, Illinois.



Physical Examination

It can be assumed that a minimal content of an effective checkup is accepted. With these limitations it must be determined whether or not the patient has a specific problem. What might be an adequate examination for a patient without complaints might be totally inadequate for a patient who has complaints.

In the case of a patient who considered himself "well" and who has no complaints at the time he comes for a check-up the content of the examination may be somewhat more limited than in the case of a "sick" patient. The record of the patient's history is of extreme importance.

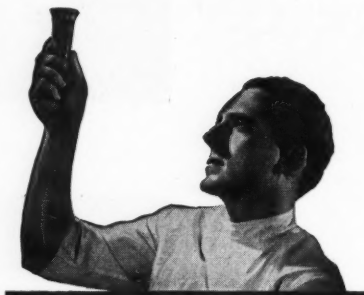
The history may not be so helpful as is expected in a patient who has symptoms. Nevertheless, it may afford help in anticipating future disabilities. A history of diabetes in the family of a patient might prompt one to search more carefully for evidence of diabetes in the "well" patient.

The physical examination would be complete in all essential details and would include both pelvic and rectal examinations. At the time of the rectal examination, many physicians prefer to perform a test for occult blood on a particle of feces that may be obtained on the gloved finger. Other basic laboratory studies in this "well" patient would include the following: (1) Hematocrit. This is a usual device for screening abnormalities in the red blood cell count and white blood cell count. It is least subject to error of all tests for this purpose. The white buffy coat at the top of the red blood cell mass provides a satisfactory screen for gross leukocytosis or gross leukopenia. (2) Urinalysis. The minimal procedures in this test would include measurement of specific gravity (a satisfactory screen for renal function when specific gravity is 1.018 or above), a test for albumin, and a test for glycosuria. In addition many physicians find it reassuring to perform a microscopic examination routinely on the urinary sediment.

It might be debated whether sig-

MEDICINE

and the Biologic Sciences



moidoscopic examination should be included in the examination of a "well" patient. True, this examination is troublesome to the usual patient, but some physicians consider it essential for the detection of malignant neoplasms or polyps within range of the sigmoidoscope. If this examination is to be omitted certainly the digital rectal examination must not be.

For a patient who comes to the physician because of illness, it is usually necessary to extend the examination considerably. The range of examinations will depend upon the nature of the patient's complaints. If any intelligent advice can be given regarding the extent of the examination in a symptomatic patient, it would be related to the task of history-taking. The history is certainly the most difficult part of the examination, but it is by far the most rewarding. Without a good history the physician is like a traveler without a road map—constantly lost, constantly anxious, and constantly losing time without getting anywhere.

Information: A Complete Physical Examination, Gen. Practitioner 16: 121-122 (September) 1957.



Accidents

It is important that drivers be warned about alcohol. Also the public should be cautioned about drugs. Free access to sedatives and hypnotics creates a source of danger to automobile drivers. Antihistamines may cause drowsiness, and, in hay fever season, allergic patients who depend on antihistaminic drugs may be disturbed in the cerebral cortex.

The new vogue in the wide use of tranquilizing drugs, antipressor agents, and their counterparts, the stimulants, especially amphetamine compounds, has added other sources for driver unfitness. Persons determined to travel great distances and who drive for excessively long periods have learned that some stimulants may help. That they are always safe, however, is questionable.

Psychologic and psychiatric aspects of driver operation represent an area of considerable importance and controversy. The emotional stability of the driver with a powerful 2-ton passenger vehicle or 10-ton trailer truck, with a terrific force at speeds of 40 to 70 miles per hour, is as important as any single factor in maintaining traffic safety. The stakes in human life and suffering are great on the highways because the damage done by the neurotic, irresponsible driver is so devastating.

The juvenile driver under the forces of growth, with an expanded ego, and broadening social horizon, demands and usually obtains free access to motor vehicle transportation. He is in a hurry, impatient, burning his candle brightly and rapidly, and enjoying the feeling of power and freedom of movement.

Unfortunately, emotional stability is not always attained with passing time, and there are plenty of adults who, sensing the force of 250 horsepower at the tips of their toes, act with the same reckless abandon. The nervous tension of any driver at any age is a factor that he alone must evaluate in determining the mode in which he operates his vehicle and

whether or not he can protect himself as well as others from possible accidents.

Graef, Irving: Physicians and Automobile Accidents, Mod. Med. 25:209-222 (February 15) 1957.



Alcoholism

There seems to be no generally accepted definition of alcoholism. Unless the alcoholic arrests his drinking permanently, his life becomes more and more deteriorated and disorganized with an inevitable downhill course.

Alcoholics are sick people and yet there is no single disease pattern. Some alcoholics reveal definite psychiatric disorders. In others the condition is complicated by metabolic dysfunction affecting liver, nervous system, and other organs.

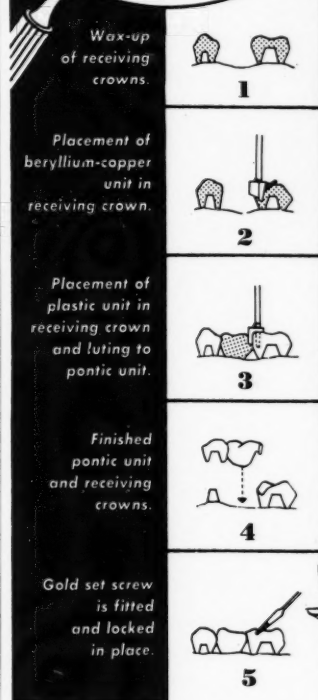
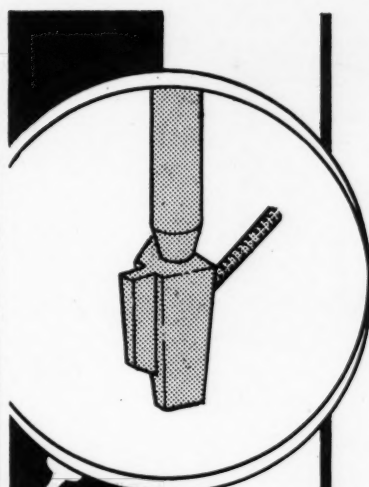
Alcoholism is defined as a progressive disorder of behavior, characterized by (1) forms of drinking which deviate from traditional and customary use of alcoholic beverages in the community, (2) loss of control over the use of alcoholic beverages, and (3) interference with bodily and mental health, interpersonal relations, and social and economic functioning.

For the alcoholic, alcohol comes more and more to occupy a central place in his life. It pulls him together in the morning; it calms him at night; it gives him courage; it provides escape, and he uses it to assuage the ravages of withdrawal.

It is not known why one person continues to drink all his life with control and little or no apparent harm, while another, sooner or later, or even from the start is unable to regulate his drinking. No single etiologic factor has been verified.

Unless the alcoholic arrests drinking, he will follow a downhill course terminating in death. The patient may, however, become accessible to therapy at any phase of his illness. The most powerful motivating factor leading to effective treatment is a clear recognition by the patient himself, that he

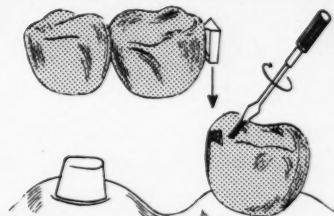
(Continued on page 227)



introducing

THE

WILKINSON PRECISION LOCKED REST



Designed for specific use as a removable replacement of any fixed soldered joint in bridgework or splinting of the restorative units, our Precision Locked Rest incorporates the principle of a mechanical friction lock plus the positive action of a set screw. Its use is advocated where the abutments are out of parallel; where the length of life of one of the abutments is questionable; where splinting is indicated; in cases of immediate bridgework, and in cases of periodontal involvement where a removable pontic will facilitate treatment. Available as a kit, The Wilkinson Precision Locked Rest consists of a beryllium-copper female former, a plastic male former and a gold set screw.

THESE ATTACHMENTS ARE AVAILABLE IN 4 MODELS:

- Anterior with screw on the lingual
- Posterior with screw on occusal
- Posterior with screw on left
- Posterior with screw on right



WILKINSON COMPANY
Box 303
Santa Monica, California

BINDERS

available for immediate delivery.

Each holds a complete volume.

Price, \$4.00, Postpaid

(Postage extra for shipment to other countries)

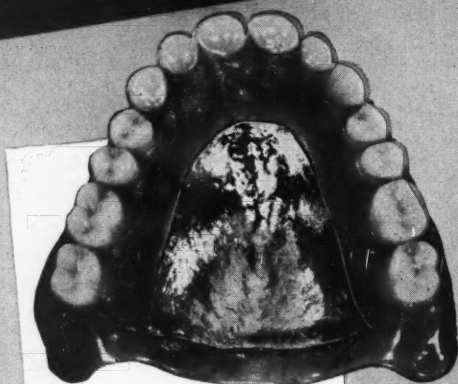
DENTAL DIGEST

1005 Liberty Ave.
Pittsburgh 22, Pa.

ADVANCED PROSTHETICS



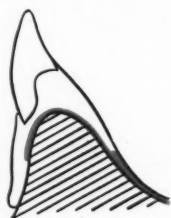
Vitalium® CAST FULL BASE



CAST BASE



PLASTIC DENTURE



FOR FORM STABILITY... FULL NATURAL PALATAL DETAIL... EXTRA THINNESS... INSTANT THERMAL CONDUCTIVITY

New and advanced methods reproduce every fine palatal detail on tissue and tongue side. These details are retained throughout the processing procedure, even to final polishing.

New methods produce thin castings, providing instant thermal conductivity, maximum strength and form stability. An acrylic post-dam permits rebasing when necessary and forms a firm seal against tissue.

- The uniformity of thin-gauge Flexseal® sheets and their affinity for the especially prepared refractory model make possible Vitalium palates of thinner gauge than heretofore possible (28 gauge).

• • •

- A smooth continuation of metal, denture material and teeth is achieved. Maximum tongue room is assured with no interference with speech.

ANOTHER ADVANCED PROSTHETIC SERVICE OF The Vitalium Laboratories

AUSTENAL, INC.

New York

Chicago

© By Austenal, Inc.

is unable to handle alcohol and that his life has become unmanageable. This has been described by Alcoholics Anonymous as "hitting bottom." In recent years it has been shown, however, that many alcoholics can be helped to recognize their condition at earlier stages and thereby take effective steps toward recovery.

Hoff, Ebbe Curtis, and McKeown, Charles E.: Management of Alcoholism in General Practice, Med. Times 86:1-8 (January) 1958.



Myocardial Infarction in Young Men

The medical problems confronting the professional man today are quite different from those of 10 to 15 years ago. Since that period there has occurred a dramatic prolongation of life expectancy. There are more than 7,000,000 persons in the United States over 65 years of age. More than 1,000,000 have passed the 80-year mark. In the past 10 years these figures represent an increase of over 30 per cent. Today the primary challenges of medicine are rapidly becoming those of an old-age, or geriatric, population.

The greatest scourge of the current period is cardiovascular disease. It is responsible for more deaths than the five next most common causes combined. At present the most commonly fatal type of cardiovascular disease is coronary atherosclerosis.

The etiology of coronary artery disease is relatively obscure. One fundamental concept has been established: Coronary atherosclerosis is a disease; it is not the inevitable result of aging. Despite an encouraging observation, no effective prophylaxis can be anticipated until the pathogenesis of the condition is understood.

It is recognized today that coronary atherosclerosis is occurring in many younger men. Also myocardial infarction occurs three to six times as frequently as in women. Most cardiologists believe that there is no climactic influence on the incidence of coronary occlusion.

It is quite well documented that

coronary artery disease occurs with especial prevalence in certain families. Also obesity is generally regarded as predisposing to coronary artery disease and myocardial infarction. Some men believe that the excessive use of tobacco may be of importance in the pathogenesis of coronary artery disease.

Whether unusually strenuous activity can result in myocardial infarction is still debatable. It is quite generally agreed that any association between effort and coronary occlusion is purely fortuitous. Also the time of day at which occlusion occurs is considered to be a matter of chance.

Often the diagnosis of myocardial infarction in young persons may be overlooked. The condition is generally regarded as being quite uncommon before the fortieth year of life and so is frequently not considered in differential diagnosis. In addition, the clinical picture and physical findings in young persons may be minimal. Serial electrocardiograms, sedimentation rates, and white blood cell counts are often required to definitely establish the diagnosis.

McVay, Leon: Myocardial Infarction in Young Men, Postgrad. M. 20: 506-513 (November) 1958.

A Clinical Application of Hypnosis and Hypnoanesthesia in Dentistry

(Continued from page 213)

would stay numb until dentistry was completed.

2. After the partial dentures had been left out of the mouth for a period of 24 hours, impressions and bite registrations were taken of the upper and lower teeth.

3. Ten days later eight lower anterior teeth were removed and an immediate lower denture was placed in the mouth.

4. The patient was told that the lower tissue and bone would stay numb for one week during which time the areas would heal quickly and normally; that she would be able to talk, chew, and use her new teeth as

Rode

DIAMOND INSTRUMENTS



... are those most prominently mentioned in the authoritative "HIGH SPEED & ULTRA SPEED in Dentistry"

by DR. HAROLD C. KILPATRICK (SAUNDERS)

Many of our originations are recommended; but the set of 3 shown here represents the most frequent choices of the author and contributors.

In salute to them ... a very special price for these 3, together with 2 samples of the new, long, very thinnest of tapered burs,—Rode #699.

\$16.50

4MJ (sent direct if your dealer cannot furnish)

CHARLES W. RODE ASSOCIATES

P.O. Box 246 Los Angeles 32, Calif.



PERRY O'DONTAL Says:

"Stainless Silver Nitrate Therapy is the time-honored method to harden soft dentin and inhibit caries.

"Our Formulas D-5 Ammoniated Silver Nitrate and D-6 Reducer are the IDEAL COMBINATION for Stainless Silver Nitrate Therapy which sterilizes and hardens tooth structures.

"Write me for information on these and our other products. Order from your dealer."

PERIODONTAL SPECIALTIES COMPANY
Box 5151, San Antonio 1, Texas



Fig. 1. Dentist examining patient at close range during detectability test.

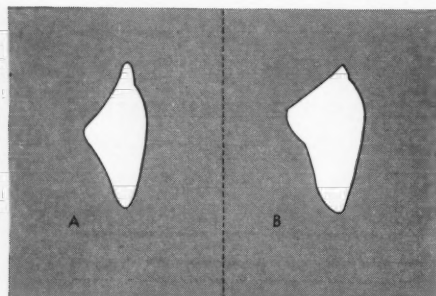


Fig. 2. Dura-Blend now offers choice of profile: (A) Characteristic of new moulds; (B) Typical of many existing moulds.



Fig. 3. New Dura-Blend shade guide has three additional shades. Rugged plastic handles are designed for maximum convenience in matching.

New Moulds New Shades in Dura-Blend

Tested for Detectability

In a series of tests at important dental meetings only 10.7% of the dentists participating were able to accurately distinguish Dura-Blend anterior teeth from natural teeth. Such teeth are clearly undetectable under ordinary conditions. Send for details of test.

New Moulds, New Shades

Thirteen new moulds have been added. Ten upper moulds originally introduced with Myerson's Aesthetic porcelain teeth offer more subtle labial carvings, slender forms and longer ridge lap. Three new lower moulds, short in relation to width, increase convenience in selection.

Three new shades, M61, M65, M69, have been added to increase Dura-Blend's shade-matching superiority. M61 is quite light and bright, M65, similar but darker, and M69, quite grey. New shade guide proved first choice in match to natural teeth 44 percent more often than the shade guide which scored second in this respect.

Proven Durability

Durability of Dura-Blend is unequalled, as proven in over ten years of successful use in hundreds of thousands of cases.

Write today for new Shade Guide
and new Mould Chart. Address:

Myerson

TOOTH CORPORATION

91 Hamilton Street. Cambridge, Mass.

conscious of them. The dentures were excellent in occlusion, vertical dimension, and retention, although the ridges were completely absorbed.

Origin of Dissatisfaction: Statements made by her dentist who was afraid that he could not make a proper set of dentures for her had influenced the patient. Although the finished dentures were excellent, she had been permitted to leave the office with the negative impression he had inspired originally. Later he tried to tell her that her trouble was imaginary, without realizing that he had created it.

Treatment: 1. New dentures, no better fitting than the first ones, were made.

2. When the new dentures were inserted, she was placed in hypnotic sleep and told that she would enjoy her new dentures, that they looked and fitted well, that she would eat, chew, and talk with them as well as she had with her natural teeth. She was told that in her awakened state she would speak clearly and distinctly.

3. She was given some cookies to bite and chew on. When she found she could do that without displacing her dentures, she was told that she would chew and eat as well in the awakened state. This patient has adjusted to dentures and is satisfied with them.

For Operation Requiring Lengthy Chair Time—These operations would include (1) root canal therapy, (2) apical curettage, (3) alvelectomies, and (4) removal of impacted teeth.

In Cases Difficult to Obtain Centric Occlusion and Vertical Dimension—The phenomenon of regression is extremely useful in denture construction. Suggestions are made that the patient is younger, that he is at the age when he had his natural teeth. He is asked to relax the jaw and close the teeth together. No matter how hard he tries the patient cannot bring the jaws closer together than they were when the natural teeth were in occlusion. Measured with a pair of dividers it has not been possible to get different registrations on the same patient in more than a dozen attempts.

(End of Part Two)

436 Gate City Building

well as she had used her natural teeth.

5. After awakening, the patient felt well and returned 24 hours later to report that she had no difficulty.

6. The upper six anterior teeth were removed three days after the first extraction and the upper denture was inserted immediately. The same suggestions as those given when the lower denture was inserted were given with the same results.

Psychologic Difficulty in Adjusting to Prostheses—The patient with the

following case history was successfully treated for such difficulty.

Case History 5—A woman presented with complaints about the dentures she was wearing. She had been told by her dentist she had a difficult mouth to fit and that it would take a long time to become accustomed to dentures, and that she would have to be patient in learning to use them.

Dentures Irritating: She did not complain of sore spots, but said the dentures irritated her. She was always

Contra- Angles



Emotional First Aid

Have you ever been in need of a friendly ear into which you could pour forth your troubles or a strong shoulder to lean upon? If you have not you are one of the few people in the world who has not suffered some kind of distress. We human beings are weak vessels at best. We require understanding and approval. We are often faced with problems that seem unsolvable. We have fears and anxieties that assail us. We have doubts and indecisions that trouble us. We have aches and pains that worry us. We have interpersonal, financial, and occupational problems that confront us. To whom do we turn? We all have our favorite. It may be to anyone from a bartender to a psychiatrist.

Fortunately many of our torments are relieved by the mere mechanism of "talking them out" to another person who furnishes a friendly ear to hear or a convenient shoulder to lean upon. Other problems are so deep-seated and have so distorted our personality that it requires expert guidance to help us.

Regrettable as it is there are some people who have no understanding friends to sustain them. Or if there are such friends the tormented person is so rigid in his pride that he does not wish to open his facade of self-reliance to ask for help. If that is his situation he may need *emotional first aid* from some stranger. Such service is now offered in the City Hospital of Elmhurst, New York. It is hoped that other hospitals will copy the noble idea.

Scope Weekly reported the founder of the special trouble-shooting Clinic, Leopold Bellak, M.D., speaking in these words:

"The rationale of the Clinic is really quite simple. Acutely unhappy people can sometimes be helped remarkably by one or two frank discussions with

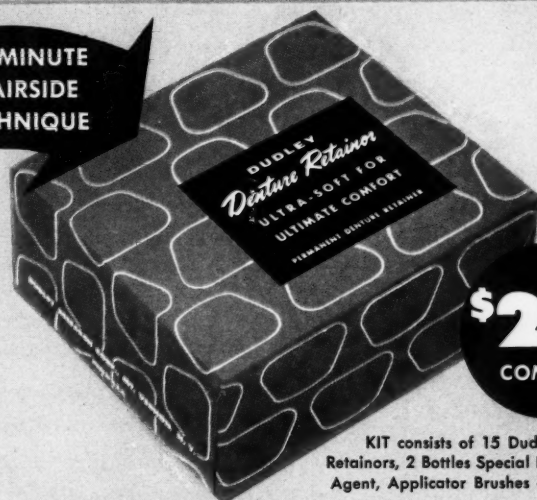
Permanent, comfortable denture retention **DUDLEY DENTURE RETAINORS**

Provide an effective **ULTRA-SOFT** material

to **SUCTION (FOOD) SEAL** any **DENTURE, OLD or NEW, lowers, uppers, immediates, even flats**

Eliminate mouth soreness due to contact with denture. May also be used for lingual bars and saddles of partials to insure patient comfort.

**10 MINUTE
CHAIRSIDE
TECHNIQUE**



**\$20.
COMPLETE**

KIT consists of 15 Dudley Denture Retainers, 2 Bottles Special Formula Bonding Agent, Applicator Brushes and Instructions.

DUDLEY RESEARCH CORP.

55 Mt. Vernon Ave., Mt. Vernon, N. Y.
Mfrs. of the Malletor and Impactor

a seasoned practitioner. Others obviously require more prolonged treatment or counseling.

"The Clinic offers the first kind of help with no delay and, when this is not enough, tries to get the patient to his family physician, to a psychiatrist or private psychiatric clinic, to our own out-patient clinic, or perhaps to a social or legal aid agency.

"As we anticipated, relief and mobilization have, in a number of instances, been provided in a single visit. We have set a limit of three visits

which we find generally sufficient for this type of service. One of our major assets is the fact that the door is open at night and that someone is ready to listen—without appointment or other formality. As we grow we will do everything possible to keep it that way."

Do dentists have emotional problems? Certainly they do and in the same proportion as any other group. Some of the issues are minor and transitory. Some are deeper and more

(Continued on page 236)

How to sharpen your DIAGNOSTIC SKILL

The information from a shelf of textbooks has been compressed into the easily-read, rotating diagnostic chart, ORAL DIAGNOSTIC SIGNS. Use of the chart will save you hours of searching through reference material.

The mouth is a mirror that reflects the manifestations of many systemic diseases. One hundred of these system diseases are included on ORAL DIAGNOSTIC SIGNS. The lesions that may appear on the lips, buccal mucosa, tongue, gingiva, and palate are described on the chart.

The dentist encounters lesions of the mouth that should alert him to consider diseases of nutritional or hormonal imbalance, of malignancy, of bacterial or viral origin. In such cases, the dentist should refer the patient to the physician for more thorough examination and treatment. The physician observes lesions of the

mouth that may be of mechanical or local infective origin. In such cases, the physician should refer the patient to the dentist for definitive treatment.

The dentist, because he often sees the patient before the physician sees him, has the opportunity to become an important member of the health team by detecting the early expressions of systemic disease. Early detection and treatment of these conditions will save lives!

Every dentist and physician—whatever his specialty or field of particular interest—should have a copy of this important diagnostic aid! Send for your copy today!

ORAL DIAGNOSTIC SIGNS has been prepared by Edward J. Ryan, D.D.S., Editor of Dental Digest, and E. Cheraskin, M.D., D.M.D., Professor of Oral Medicine, University of Alabama.

Dental Digest ★ 1005 LIBERTY AVENUE ★ PITTSBURGH 22 ★ PENNSYLVANIA

Please send me _____ copies of the chart,

ORAL DIAGNOSTIC Signs at \$1.98 per copy.

☐ I enclose check ☐ I enclose money order

☐ Please bill me through my dental dealer

Dr. _____

Address: _____

City: _____ State: _____

Dealer: _____



100 diseases are classified under these ten categories on the chart

1. Diseases Due to Biologic Agents
2. Physical Agents
3. Chemical Agents
4. Neoplasms
5. Cysts
6. Hormonal Disturbances
7. Developmental Disturbances
8. Nutritional Disturbances
9. Reactions to Stress and Antigentic Substances
10. Miscellaneous Disorders

long lasting. Some accompany fatigue or ill health and the trouble disappears with the correction in the physical condition. Others represent deeper frustrations and aggressions that are buried in the psyche and require expert attention.

It is quite easy for us to say that the present world is more stressful than the one of 25, 50, 100, or 1000 years ago. It may appear to us who are living in this world that such a condition is true. There are no real data to substantiate the opinion. If we turn for an opinion to our elders and ask if today is more stress laden than fifty years ago we are likely to receive a positive answer: "Today is worse." But that opinion is tinged with nostalgia. Even the poverty of our youth and the privations therein take on a golden aura in retrospect. That, plus the fact of the aging process in which stress is not well tolerated, tempers the judgment of the elder from whom we sought opinion.

We cannot depend on literature for the answer. If one reads the sonnets

insist on **CloverLeaf** PLASTERS and STONES STURDIROCK

Ideal for mouth rehabilitation work . . . High strength, hard surface dies and models



HYDROSET

Finest texture stone—fast setting—8-10 minute initial set

CLOVERLEAF X

A precision plaster—extremely fine texture—8 minute initial set

Also, Flasking Compounds
. . . Investments . . .
Specialties

Ask your dealer's representative for our line—

Guaranteed to satisfy—
or return for full credit

Prices FOB Newark or Chicago

JAY E. HEALEY CO.

21 Baldwin St., Newark 2, N. J.

What do you want most

AIR TURBINE

Precision-made by Atlas Copco, world's largest manufacturer of pneumatic equipment.



TWO HANDPIECES

Contra-angle and Straight models
Dentalair comes complete with two handpieces; eliminates time-consuming changes. (Single handpiece unit optional.)

SERVICE INSURED

A five-year insurance policy with the world's largest and oldest insurance organization guarantees spare part availability.



TROUBLE-FREE SERVICE

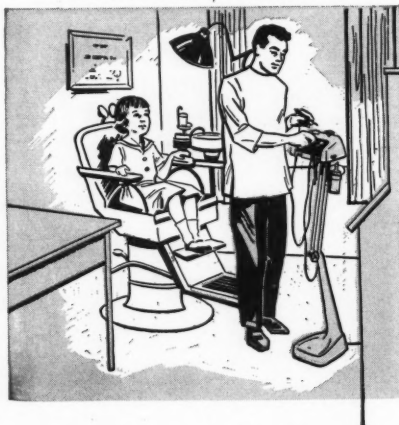
. . . thanks to precision design of every part. Example: After nine months' continuous use, a contra-angle handpiece required replacement of just one \$8.00 part.

HIGH OPERATING SPEEDS

The high speed Dentalair handpiece (0 to 175,000 turbine rpm) does more work in an eight-hour day than any other unit.

UNCLUTTERED OFFICE

Dentalair is the only high-speed unit that completely replaces old-fashioned belt-driven equipment. Gives the office a cleaner, more modern appearance, both physically and esthetically attractive.



AUTOMATIC SPRAY

Air-water mixture is fully adjustable for maximum cooling—or can be shut off completely.

ACCEPTS STANDARD SHANK BURS, ETC.

Protects investment in present burs, discs, steels, stones, diamonds, carbides.

of the Elizabethan era he would believe that then the lives of people were serene and unclouded. Mr. Dickens, however, gives contrary testimony. Some present-day literature is Jobian in lament of the modern man and fully documented with his tensions. I believe this writing is done by people called "beatniks." On the other side of the literary ledgers are present-day writings that are filled with sentiments of grace and beauty. Unfortunately

such books do not enjoy the success at the box office that is experienced by the libidinal-incestuous-homicidal-psychotic literature.

Although the literati like to think that they are holding a mirror to the face of society and what is put down in words in print is a social document, the fact is that the self-image of the writer is out of focus. Relatively few people are in the literary business, or art, if you prefer the fancier term. The

...n a dental unit?

Dentalair has everything!

The new Dentalair Unit has all the features necessary for modern dentistry—yet performs every operative procedure in strict classical manner! No new techniques to learn—there's no need for "stroking" or "brushing," since both torque and speed are controlled by a touch of the finger. You have full, normal tactile perception at all times, especially important when visibility is limited.

And talk about patient comfort! Here are actual unsolicited quotes from patients who have experienced the Dentalair Unit:

"I felt completely at ease—better than the regular drill."—from an "average" patient.

"Boy, I'm for this!"—from a "Rocky type" teenager with 30 cavities, whose fear had kept him from a dentist for eight years!

"Did you do anything?"—from a seven-year-old child.

"Ouch!"—even Dentalair isn't 100% painless!

"This is very tolerable, you know!"—not an Englishman; just an extremely literate woman.

Check the features described here, and then try Dentalair for yourself, at your next convention. Or, write for the name of your nearest dealer, who will be happy to arrange a demonstration. Address: Dept. DD-12.

Dentalair

Atlas Copco

10 Industrial Avenue
Paramus, New Jersey

930 Brittan Avenue
San Carlos, California

National Representative: Parkell Company, 23-06 31 Avenue, Long Island City 6, N.Y.

people who write have their own private emotions that they are putting on paper. There are millions of people who do not write for publications who have emotions that are just as real and just as valid as those expressed by the writing people. Whether this vast and overwhelming number of present-living people have more or fewer tensions than did their ancestors is unknown by any standard of measurement. There have been lunatics, mur-

derers, sex maniacs, drunkards, drug addicts throughout the epochs of history. We hear more about the present depravities because we are living in the midst of them, people are more frank to discuss them, and the media of communication are better mobilized to report them more fully and dramatically.

The troubles of Job and Moses, of Peter and Paul, of Abraham Lincoln were certainly tribulations of the body

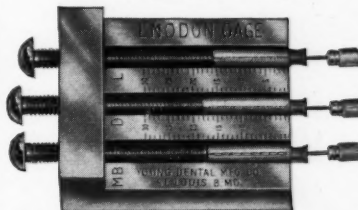
and soul. No one could call their times less stressful than the present. Each age has a different pattern of stress. The atomic age seems to concentrate on the popular psychosomatic patterns.

Emotional first aid has always been dispensed by some member in society. The medicine man, the seer or prophet, the priests, all gave counsel thousands of years before the psychiatrist was evolved. The wisdom of the patriarch, the practical sense of some old wives' tales, were of the essence of emotional first aid. If we are fortunate we have had someone who was expertly skilled in this homely kind of help. For my part, I recall the sustaining emotional first aid administered by my grandmother who came through the Cumberland Gap in a wagon train and knew Mr. Lincoln when he came to Dixon's Ferry in Illinois. There I go showing my own kind of nostalgia!

—E. J. R.

Buy Security Bonds

**MICROSCOPIC ACCURACY
MEASUREMENTS, CALCULATION
ERRORS ELIMINATED
WORK TIME CUT 50%**



ENODON® GAGE for root canal work

This scientific instrument tells you where file tip is at all times. Prevents danger of being short of, or going through apex. No more concern over reamers and files of varying lengths. Successive files and reamers are set from same gage setting. Complete canal filling is as easy as partial. Gage makes possible treating 3 canals simultaneously. Also assures more accurate medication and coagulation. Only \$15.00.

THE ENODON® RACK

... gives you 48 reamers at your finger tips numbered for quick finding and replacement.

Order from your Dealer.
YOUNG DENTAL MFG. CO.
St. Louis 8, Mo.

